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## REQUIRED READING FOR JUNE.

### PEDAGOGY: A STUDY IN POPULAR EDUCATION.

BY CHANCELLOR J. H. VINCENT, LL.D.

#### FOURTH PAPER.

The man who is ill sends for a physician, and then under his physician's direction, takes certain medicine and adopts a prescribed diet. This is not all. He has his window opened from time to time to let in the light and the fresh air. If possible he takes a journey for change of air and of scenery. He regulates the permanent conditions and depends as much upon them as upon food and physic. He is wise thus to control the special, or direct, agencies and the equally important but incidental conditions. This two-fold work is equally necessary in the science and art of pedagogy.

I have thus far in these papers tried to define the nature, end, and process of education; to indicate the educating conditions of our modern civilization; to define the four leading educating agencies,—the church, the home, the school, and the press; and now in this closing chapter I hope to show how both the "conditions" and "agencies" may be selected, applied, and regulated. It was difficult to introduce these teaching factors without anticipating to some degree the more specific and practical counsels which properly belong to this branch of the treatment; and I need not apologize for the didactic form which the final chapter of necessity assumes.

If one lives for "conduct," which according to Matthew Arnold, and according to Solomon also for that matter, "is the end of life", and for "character" which is the only root that can yield conduct worth producing, then every thing of an external sort in life should be subordinated to this attainment and deportment. Wealth achieved by crime, or at the expense of "high thinking" and true living, is so much a loss and so much a curse to him who wins it, and to his children as well. Better, far better to be poor in property and rich in mental gain and spiritual character; for this is the only enduring possession. Assuming that these high educational aims have been adopted by my readers, I will turn Mentor and try to tell how parents may become teachers; and how the church and the home may be great schools of training, preparing the way for the other schools and supplementing their more formal and elaborate methods.

It is a good thing to choose a home with as much care as one chooses a school. Indeed the former is the more important choice. It is a great matter of surprise that so many people prefer the city to the country, or the great metropolis to a rural town. There are thousands of families crowded into the most limited and unwholesome quarters in great cities, who could live less expensively and far more comfortably in a suburban neighborhood where their children could have plenty of fresh air to breathe, and ample ground for frolic and for useful exercise. Even the residents on the great avenues are a wonder to me for the same reason. Whether in the city or the country, one should select a home for his children with an eye to their permanent good, rather than to present pleasure or future financial gain. Once in a while I meet a man whose residence is determined by this educational idea. "It will be better for my children to live here," he says. He is determined to control the atmosphere.

"Alas, alas", moans one poor soul, a mother, "I cannot go where I would, and here in this squalid and confined neighborhood I must bring up my children. What good will your law of atmosphere do me and mine?" Good woman, I have seen a lily grow in the mire. You may not go to the best and freshest, but much of the best and freshest you may bring to you and yours. The broom is a magic wand. It makes little folks fairies to wield it. Soap is so cheap and water does its work as well in an alley as on an avenue. You can have clean floors, a clean door-step, whitewashed walls, vines that creep and flowers that bloom. Inexpensive appliances, a little tact and a good deal of industry, in which your children may be the principal actors, will make your badly located quarters a place of beauty and full of the influence that teaches without voice or tongue. Occasionally an evening or a holiday ramble into the nearest park or into the country will give air and exercise and chance for saying some things that will never be forgotten by those you love best.

Another thing you can do. The church and the school are open to you and to your children. Sermons and lessons may be had for the going to where they are given. You can

send, or, better still, take Tom and Kate, and all the rest to the sanctuary and let them hear the preaching and join in the singing and bow reverently during the prayers. You can put them into Sunday-school and into day school, and by a little wisdom (which plenty of people nowadays are glad to supply you with) you can buy cheap books that are good books. Thus you may get all the great educational agencies at work on and in behalf of your children. And your home life may add power to all of them.

What is true of this poor woman and good for her children will be equally true and good in the case of the well-to-do and the "middle" class people. We may all unite in building up great enterprises religious and educational, and at the same time make our homes helpers of these enterprises.

When twenty families on a street keep clean sidewalks and put the street in order in front of their own houses, a work that amounts to a public benefaction has been well begun. The community that rightly estimates the teaching power of "conditions" will have its "village improvement society" for the planting, training, and trimming of trees, the setting in order of streets, the sweeping of sidewalks, the cultivating of public parks, the erection of monuments, and the following of true art in the erection of public buildings. How much one good well-kept hotel in a town, will do toward improving the rest! A display of taste in the show window of a shop will stir up to similar enterprise all the other shop-keepers in the same line of business or in the same neighborhood. Shop windows are text-books in art. A joint protest by the leading ladies of a town would cause the removal of corrupting pictures from the windows, and a similar effort would promptly induce the town authorities to prohibit the posting of show bills of an objectionable character. Combination, persistency, kindness, could in numberless instances develop an anti-saloon and possibly a prohibition spirit even among our foreign fellow-citizens who have never seriously considered the question of the rum traffic from the American Christian point of view. In securing such an end what an important educating "condition" would be promoted!

Before every other institution and determining its power for good is the home. We start out with that when we talk about church and school. We come back to that again almost immediately. The strong cold wind cometh out of the north; soft blow the breezes from the south; but the all pervading atmospheres that bless or curse the community come from the homes of the community.

Would you help the church? Begin with the home. Let authority send every member of the family to the sanctuary. Always speak of the church, its services, its pastor, its Sunday-school, with reverence and charity. Supplement sermons and lesson with home instruction. The best direct work of the church demands the perpetual influence of the home.

Would you help the day school? Begin with the home. In what way I have shown in the previous chapter.

Would you develop a well-balanced character and make your children truly refined and cultivated men and women? Begin with the home. Table manners, three times a day, on all the days, whether you have company or not, have educating power. Gladstone attributes his present vigor (he is over eighty) to the fact that he has practiced a homely little hint which he heard in his boyhood, to the effect, that he should chew each mouthful of meat at least twenty-five times before he swallowed it. What a blessing if this rule were suddenly and permanently to go into operation in

American homes! Politeness at the table, the right use of fork and napkin, the avoidance of all uncomfortable themes in conversation, the habit of cheerful talk and, at times, of hearty laughter would promote digestion and help on the day's work and study. Criticism, fault-finding, worrying at meal time, have caused many a poor recitation in school and many a blunder in business. So much power lies in "conditions."

Pleasant evenings at home spent in recreative rest are an education for society. There one is taught to talk and to listen, to play and to sing, to make others happy and to be made happy by others, which last is a great gift and a rare one. And what is all the education of the schools worth if one who has it, is not able with it to bless society and thus to brighten the lives of people?

In controlling the social educating force in the family, great discrimination and much independence are necessary. Bad people although accomplished and attractive are dangerous. Frivolous people are almost as harmful. They weaken the self-respect of those who entertain them and set a pernicious example before children. Better let the parlor be cold and dark than occupied by other than people of heart and character. After this condition is met, the more brains and the more taste the better.

It is important in the work of education wheresoever and by whomsoever carried on, to give freedom to the pupil. He must be let alone a great deal. Too much reining in is bad for him. Bring the law to bear on him at stated times and then let it bear with full pressure. But give him a colt's freedom. If he gets soiled hands and muddy boots and trousers "not fit to be seen", let him come home to a hearty "Glad to see you, my boy". A boy who does not soil fingers, boots, and trousers now and then is not "of much account" as we Americans say. When you find him in the midst of his muddy exploits cheer him on with a sympathetic "Isn't that fun?" But when the time comes for the end of his play, see that it ends promptly and that the washing up is thoroughly done, so that he may learn the relations between restraint and freedom and cheerfully submit to the one because he finds such unqualified delight in the other.

We should somehow secure the occasional coming together of all those whose special responsibility it is to give direct instructions and control social conditions. I have in mind a semi-annual meeting in a small town or city of all the school teachers, pastors, editors, and city mayor and council to discuss in a frank way some of the educational topics. Political and denominational complications would arise, local prejudice would sometimes be excited, but I believe that on the whole great good would be the result.

This then is the problem of pedagogy: How make life in all its parts, through all its agencies, and under all of its conditions a unity tending toward the education of the whole people? The school has power but its power is slight unless it co-operates with other educating forces. And these other forces are all about us. A young barrister once said to the great Mason, "I keep my room to read law." Mason answered: "Read law! It is in the court room you must read law." Bulwer Lytton somewhere says practically the same thing: "A man on the whole is a better preceptor than a book." Let us have books and teachers and schools, but let us have churches and homes, a pure journalism, libraries, pictures, laws, social customs, popular sentiment,—all of which will combine to commend to our people "the True, the Beautiful, and the Good".

Rome, Italy, February, 1887.

(The end.)

## CIVIL ENGINEERING.

BY W. BARCLAY PARSONS, JR.

Engineering has been defined as "the science and art of utilizing the forces and materials of nature," and as such was formerly divided into two branches, Civil and Military. The latter covered the class of work denoted by its name, the construction of forts and other structures necessary in the art of war, and the large field remaining was embraced in the comprehensive title of Civil Engineering.

The introduction of steam and the subsequent rapid growth of applied science, coupled with the general tendency to subdivide into specialties, has naturally and properly led into the triple division of civil engineering under the heads of civil, mining, and mechanical; the previous preparation and education for which and the subsequent differences in pursuit and application necessitate a separate discussion. This article is therefore confined to civil engineering proper as defined as the science of railroads, bridges, highways, canals, river and harbor improvements, water supply, and sanitation, with their involved details.

American engineering practice differs very considerably from that of European nations. The problems to be solved, the difficulties to be overcome, and the peculiar conditions to be satisfied which from the outset confronted the American engineer were radically opposed to those encountered by his foreign brother. Deep, broad rivers, and high, rugged mountains to cross; immense tracts of land to be traversed, in many cases entirely uninhabited or at least unproductive before his advent; the troubles of extremes in climate; labor scarce and high; and even the raw materials to be transported through long distances; but, above all, the fact that in most cases the undertakings were to be carried on in a country thinly settled, so that after completion the financial returns would be small and so entirely prohibitory of the expensive methods of Europe,—all these circumstances have favored an evolution of new ideas looking to the accomplishment of the most good by the most direct and efficient methods with the least expenditure. To this end the American engineer, unhampered by tradition and obliged to satisfy the demands of circumstances, has introduced into every branch of the profession new methods marked by a rigorous application of scientific principles, simplicity of detail, and great practicability. The most notable recognition of the excellence of the principles of American design was the recent awarding in London of the contract for the great Hawkesbury bridge in New South Wales to the Union Bridge Company of New York, over thirteen competitors representing England, France, and Australia.

But the question in general as to whether civil engineering offers comparatively reasonable inducements for a young man to follow it as a profession can certainly be answered in the affirmative. While it must be admitted that the engineer here does not rank as relatively high as his fellow in Europe, where the successful ones are made the recipients of all possible honors, and when old age overtakes them are amply provided for by government pensions to say nothing of the large fees received during their practice; yet it is, nevertheless, a fact that the public appreciation of the value and necessity of the skill of the engineer is steadily increasing and with it brighten the prospects of a career successful and remunerative financially as well as in accorded fame.

So vast has become the field of engineering, entailing a proportionate amount of education and experience that it is necessary for the engineer to select some special line to which to devote his energies, and not do as did Brunel the celebrated English engineer who is at once famous as the constructor of the Thames tunnel, the Great Western Railway, the Saltash bridge, the steamship Great Eastern, and improvements in artillery. As to the possibilities and inducements offered by the several branches, success depends primarily upon the relative influence at the command of the engineer and upon his own personal inclinations and ability. The general or more prominent features can, however, be summarized as follows:—

Railroads to day offer the widest field for the young engineer to enter. There are being constructed in the United States about eight thousand miles annually, not including the double tracking of existing single track roads, or the necessary reconstruction of other lines to bring them up to the modern standard of efficiency. Of railroads now constructed in this country there is the immense total of about one hundred forty-one thousand three hundred miles.

The custom of consigning the maintenance of this vast property to engineers is rapidly extending among railroad managers. The recent terrible disaster near Boston strongly emphasizes the folly of the policy of leaving the care of engineering structures to men entirely ignorant of the principles involved, so that they cannot be, however faithful and earnest in intention, the proper guardians of the lives of passengers. On one of the great trunk lines the rule of placing educated engineers in responsible positions has been carried to such an extent that for appointment to any office of trust, unless it be in the strictly commercial ranks of the traffic department, the applicant must be an engineer. The wisdom of this course is being appreciated more and more by other companies, who are applying accurate and scientific methods to the maintenance of their properties and so opening what will eventually become, perhaps, the best course for the young engineer to pursue.

The prospects for a young man to become a bridge expert cannot be said to be flattering. The old practice, still in vogue in Europe, of having bridge designs furnished by individual engineers has been almost entirely abandoned in favor of letting bridge companies or manufacturers submit their own plans subject to such conditions and specifications as the bridge buyer imposes. The bridge engineer of to-day, therefore, is almost invariably a manufacturer, and the young engineer who desires to follow this branch with success must connect himself with one of these bridge companies, and in proportion to his ambition must be possessed of commercial ability and if possible of financial backing. The principles of bridge designing and construction, however, are essential to almost every class of engineers and especially to him who intends to follow railroading, where by necessity ample opportunities are afforded for the prosecution of this most interesting of studies.

At the beginning of the century, engineers were largely occupied in canal construction. But the universal development of railways affording sure and rapid means of transportation not possible with canals, has put an end to their construction on the original plans and in some localities has even led to their abandonment. This revolution will



cause the canal of the future to be on a very much larger scale than the canal of the past. It will be constructed of great size, capable of accommodating not the cumbersome typical canal-boat, but the full sized ship of commerce and will, therefore, be an artificial river. But if the construction of water ways is at present at a stand-still, the problems of harbor and river improvements are well worthy of the consideration of our young engineers.

The size and geographical relations of this country where large areas are entirely removed from the coast, but whose products like wheat do not demand, and can ill afford to pay the expense of, rapid transportation by rail through long distances, render necessary the more perfect development of water carriage. Fortunately our great inland seas and large rivers already present the natural foundations for the system. At present their care and improvement are vested entirely in the corps of engineers of the United States Army; but the construction of new fortifications and coast defenses which will probably commence at an early date is likely to fully engross the attention of the army engineers and leave the improvements of our water ways to civilians. The study then of harbors and rivers and the most efficient means of rendering them most serviceable is well worthy of close attention.

Another field which is daily widening its scope of utility and need is sanitation. In a thinly settled country the possible unhealthy saturation of the soil by a few cess-pools, or the pollution of the rivers by the emptying into them of the sewers of small towns at great distances apart is tolerably insignificant, and the purifying processes of nature are amply sufficient to render harmless all the obnoxious materials contained.

As the towns multiply and grow into cities, the keeping of the disposal of all matter embraced under the term sewage, from the refuse of factories to the very rain which falls in the streets, within such bounds as is necessary for public health becomes, indeed, a great question, increasing in seriousness as the locality is removed from free tide-water or is prohibited from emptying its drainage into flowing streams. For all such cities a carefully conceived plan of sewerage must be devised, whose details will largely depend upon the natural or artificial features of the location in question, and some means devised whereby the sewage is not only removed but disposed of, and in a manner without detriment to health or convenience. The sanitary engineer in this country is already recognized as a necessity, but his importance will be more deeply appreciated in the future than now.

The ability to furnish our large cities with an abundant supply of pure water is a question equally important as that of sewage disposal, and as our cities increase in number and size, and the possible sources of supply grow correspondingly less, there will become a greater need for capable engineers.

In addition to the openings offered in the United States, the more extensive development of the countries of Central and South America, which will probably take place at no distant day, will cause a large demand for engineering work, particularly in the specialties above mentioned, and where the American engineer with his more direct, more efficient, and less expensive methods will undoubtedly find the opportunity for the display of his skill.

As to what are the natural qualities of character essential to the engineer it must be borne in mind that the life he is obliged to lead is far from easy and often devoid of comfort. Except for the fortunate few who readily find themselves ensconced in good salaried positions, a roving life or one

subject to many changes will be the rule.

The engineer, therefore, must have a genuine love for his profession, and so be willing to sacrifice much for it and to forego many of the luxuries considered necessities. He must be honest, courageous, energetic, appreciative of the responsibilities of his trusts, and possessed of a mind free from prejudice, capable of doing justice to all sides of a question; be quick to distinguish the true from the false, yet careful and painstaking in investigation and not resting satisfied until the whole of a problem is thoroughly explored without bias; be broad and even daring in his views, although conservative in their application, and, when assured of the correctness of his judgment, have the courage of his convictions, a characteristic so often lacking and yet so essential to success. He must be possessed of tact so as to be able to cope with and control men of all ranks for with such the engineer, perhaps, above all other professional men has to deal.

It is not necessary that the engineer should have an aptitude for business, as such matters are usually entrusted to those especially fitted; but when there is combined in the same man the skill of the engineer with ability for commercial management, the profession of engineering as applied to contracting will be found to be more financially remunerative.

At last we come to the question, What is the best preliminary education and how obtain it? It cannot be said that a technical education at one of the scientific schools is a necessity, in face of the fact that many of our ablest engineers have achieved success without the advantage of that training, but such a course is undoubtedly of immense value and abundantly compensates for the time so spent. By it the student not only thoroughly acquires those branches of education which can be called the foundation studies, but he is compelled to learn many things which in his inexperience he considers very unnecessary, and of his own accord would leave untouched, but of which in the light of after years he will appreciate the use. Unconsciously his mind is trained to think, investigate, and reason logically, and he is given a broader view of the profession, its scope, possibilities, and needs, and afterward is able to devote himself to such line of work as he feels best fitted for.

It is not well, however, to enter upon a scientific course until an age has been reached when the student is able to fully appreciate the advantages offered and to work seriously with the earnest feeling that he is now taking the preliminary steps in his life's work. It will be to his advantage, therefore, after completing a thorough school training which he must have, to obtain a good liberal education at some college of high standing, and then to enter one of the engineering institutions like the School of Mines of Columbia College or the Rensselaer Institute at Troy, New York. Such a course usually takes four years. When the student graduates he must not think himself a civil engineer; that he will become only after he has acquired an experience and is able to apply those things which he has learned. In short, he must not make the mistake that is said to have been made by a young nobleman who had just graduated from Cambridge University, England, who on finally leaving his college called on one of the professors to say farewell. "Ah! Professor," he said with a drawl, "having finished my education I have called to say good-bye." "Allow me to congratulate you, my lord," earnestly replied the professor, "for having completed at three and twenty, what I have just begun at three-score."

As to what studies should be pursued in preference to others, depends very largely upon the special line of work



which the young engineer intends following. But there is a general groundwork common to all branches that every engineer should know in detail, and other subjects which he must understand in principle, at least, so as to be able to solve those problems which will more or less involve his own specialty with some other.

This general ground consists in a thorough knowledge of algebra, geometry, trigonometry, and at least such an understanding as to permit their use when necessary, of the higher mathematics as far as and including the calculus. Mathematics of a more complex nature than this are rarely used by an engineer, and it is, therefore, not worth the while of a young man, who in his early days will certainly not use them, to devote his time to their study. For while the engineer is constantly employed in making computations it is a mistake to suppose he must necessarily be a great mathematician. In fact there are those who claim, and with some reason, that the study of this subject beyond the limits outlined above is rather a detriment, as tending to cause the mind to think according to the minute details of an exact science, and thereby placing a restraint upon that broad freedom of thought necessary to grasp the natural demands, necessities, or possibilities of a location, or upon the conception of bold plans and fertility of resource essential to the successful accomplishment of enterprises through

great and harassing difficulties.

There must also be a complete knowledge of the mechanics of solids and fluids, both theoretical and applied, and a perfect understanding of the general laws of physics as relating to heat, light, electricity, sound, and the general properties of solids and fluids.

He must also be familiar with the principles of geology and chemistry, especially relating to the manufacture of the common metals, and have a knowledge of hydraulics and the general features of machinery. It is to be understood, of course, that there is included the practical application of the above studies such as mechanical drawing, surveying, the strength of materials, the calculation of strains, etc.

At the best scientific institutions as much time as possible both during vacations and terms is devoted to practical operations in the field such as locating a supposed railroad or making surveys for water-works. Such work, which should be as analogous as possible to actual practice, is of immense value to the student. The young man both before and after becoming an engineer will derive much profit from a well kept note-book in which he jots down such facts as are constantly coming to his notice, remembering that information and experience are to the engineer what capital is to the merchant.

## THE ROCKS TRIED BY FIRE.

BY CHARLES BARNARD.

A certain great teacher of science once made the remark that "whenever his studies in science led to anything practical he at once gave them up." What he meant was that the moment his researches in nature led to any facts that might be made useful he had no further interest in the search. All he wanted was facts about nature, simple knowledge of her ways and laws.

The search for new facts was more important than any use to which such facts could be put in business, manufactures, or the arts. The remark created a great deal of discussion at the time. Many regarded it as a brave and unselfish thing to say, and the fact that any man had such a pure love of knowledge did a great deal to create an interest in research throughout this country. On the other hand, there were many who said that all knowledge should be gathered for the benefit of men, women, and little children, that science was only the helper of humanity, and that knowledge should only be gathered for the people that they may live in more health, security, comfort, and happiness.

There should be men who devote their lives to research, to the mere gathering of facts about nature and without regard to the commercial value of their discoveries. Learned institutions try to give men who are competent for such research a chance to do this work and if our government were wise, it would appropriate liberal sums toward the support of such men. There would be no return in money, but the nation would be rich in knowledge. There should be, and fortunately there are, other men who take the new facts that result from research and make them of use and value to all the people. It is recognized that the great teacher was partly right and partly wrong. There should be those who seek knowledge and there should also be those who make knowledge useful.

We are approaching the end of a year's study in the course prescribed by the Chautauqua Literary and Scientific Circle. It has been wisely appointed by our instructors that we

should this year study two great sciences. One of these may have appeared to us remote and useless. What good has it brought to us to know the stars?—Unless we have been heedless in our readings, it is something if we have gained a new idea of the immensity, wonder, and glory of the universe. We have, perhaps, gained more and found that even a science apparently devoted to pure research can bring us facts of use in the prosy business of earning our daily bread.

The other science we have studied was, at one time, regarded by many people as a fanciful kind of fairy story telling of rocks and volcanoes, floods, strange creatures that no man ever saw, and thus a science of no particular value to anybody. We as students finishing these studies have this very question brought to us. We have to recognize that both astronomy and geology may be studied simply to gain knowledge and may be studied for the sake of the facts they tell us about the great country in which we live and whose soil has made us the richest people on the face of the earth. As by far the larger part of us must take this more practical view of science we may properly end our studies for the year by a brief glance at the benefits the world has received from the study of the rocks.

In its widest sense the word "rock" means any inorganic material composing the surface of our earth, be it stone, sand, gravel, or clay. All of these were rock at one time, the gravel, sand, and clay being, as we have already learned, the product of stone or rock. The stones of the field as we have seen have been given to us for bread. The boulders of the sea-shore and the ice age have been used for the first homes built by men. Stones have given us fire and thus power so that all our civilization rests upon the use of stones for fuel. We may now see that from the rocks have come the most beautiful, as well as the most useful, materials we use in our workshops and our homes.

No man can tell when in the unrecorded past the first bold

experimenter tried the effect of heat upon rocks. Like all great experiments it sprung from observation of nature. Some brighter mind among the savage dwellers in caves or tents saw that in certain low places along water-courses the soil, after the spring floods had subsided, dried hard in the sun and broke into irregular cracks. Such a form of rock, now known as clay, was soft, pasty, or plastic, when wet and quite hard when dry. To dig up some of this soft, wet clay, mold it into a square block with the hands and to place it in the sun to dry and harden was the natural application of the observed fact to a useful end. Such a block of sun-dried clay made what we now call an *adobe*, a sun-dried brick. A small discovery, only a slight observation of nature made useful, yet it undoubtedly marked an immense step toward civilization. A brick meant construction, building, the erection of walls for defence or for a home, it meant architecture and cities.

The next step implied more knowledge and more skill. If the heat of the sun had the effect to make clay of a certain kind, hard and durable, what would be the effect of fire? How it came about can never be known, but it is evident that the effect of burning clay was known to many peoples ages before history began. The *adobe* by burning in the fire became a brick, the plastic clay, when molded by hand into certain shapes, by heat became a pot. It is almost humiliating to think on what crude and simple experiments our modern arts are founded. There is no more universal cheap building material than bricks, no more beautiful objects produced by modern artistic skill than pottery and glass, yet both sprung from the crudest experiments with a lump of wet clay and a fire of sticks. So important have bricks and pottery been to all peoples who in any degree rose above the lowest savagery that the history of the art of making pots and bricks is the history of civilization. Broken bricks now mark the sites of dead cities, and fragments of old pots have been the only traces of nations whose very names are lost and forgotten.

Notice now that while we can never know who first observed the effect of heat upon clay or who first made the observed fact useful, we do know that the art of making bricks and pottery had early reached a reputable position. The Chinese appear to have early learned how to make white and colored pottery of wonderful hardness, brilliancy, and beauty. How they learned to make the beautiful white ware sometimes known as China-ware we do not know and we can only infer it was the result, first of observation, and secondly, experiment.

The first potters and brick makers soon learned that there was a difference in clays. Some clays when burned became red, others yellow, still others, white. This led to the wider search for clays, to greater pains and more care in selecting and preparing the clay and to greater beauty and hence greater value in the pottery. The men who searched nature for new facts found beside clays certain sands that when mixed with certain other materials and subjected to heat gave a new material that we now call glass. The men who used the result of research made further experiments with the clays and sands and new arts sprung up. By the time history began, the art of making common pottery and bricks was well known. Fine white pottery appears to have long been known among the Chinese and no doubt pieces of glass had been made. The small glass bead found in Egypt and that is thought to be the oldest piece in existence would seem to indicate that some early student and workman had succeeded in making a crude kind of glass, at least one thousand years before Christ.

Here are three ancient arts, two of them far older than

history, that to-day contribute to our daily comfort and convenience and largely to the wealth of the country. We can hardly imagine the state of barbarism to which we should be reduced had we no pottery, bricks, or glass. These arts are founded on the use of rocks tried by fire. It is from our clay banks and our heaps of white sand that we obtain these essentials to our civilization. What then is the lesson to us as students of these rocks? Geology may seem to some people a dry study full of dreary details of rocks and stones under our feet and about which nobody cares. This merest glance at the history of the arts should teach us that we cannot despise the rocks, that on them we depend for the convenience, necessities, and luxuries of our homes. What could we do without glass or without pottery; yet these come from the rocks and only by slow, patient observation, long and wearisome experiment and infinite toil have men learned to make these beautiful materials. The history of these arts is the history of research, the history of experiment, the history of the pursuit of knowledge.

We can well pause at the end of a year's study of the rocks to note one thing more, because it points us to the future and seems to indicate our duty in this whole matter of our readings and study. The history of these arts extends over thousands of years. Everything learned about making pottery and glass was the result of direct search and patient trying of experiment. When pieces of China-ware were first brought to Europe there was no one outside of China who could make such ware. It was known that the ware was made of clay and that it was burned, but where the clay was found and how prepared to obtain such beautiful colors and such wonderful glaze, or surface, was quite unknown. There appeared a man whose peculiar work in the art of pottery-making has been made the subject of much extravagant praise. Bernard Palissy<sup>1</sup> undertook to find the secret of the art of making fine China-ware. The pathetic tale of his long and persistent trial of every variety of clay in his reach, of his thousands of experiments in the blind search for the right materials, for glazes and colors is one of the most wonderful life-histories we have. It will repay any of us to read it for the lesson of patience in the search after knowledge that it teaches. He worked for years, spent his all, even tore down his house and burned up the furniture of his home to keep up his furnace where his little lumps of clay were tried by fire. He succeeded in producing pottery of novel colors and great beauty, and he gave the art a great advance toward its present position and yet we see to-day that his method of work was not the best.

In Bernard Palissy's time, geology, as we know it to-day, did not exist. His work, remarkable as it was, marked the end of the long history of patient work on the old and simple plan of trying experiments blindly, and looking for facts in nature in hap-hazard search. Pottery, glass, and brick-making are old arts, and yet they are comparatively simple arts, and were practiced up to Palissy's time almost precisely as thousands of years ago.

Geology accurately maps the rocks of our country. People with shallow pates have laughed at the prying fellow poking about among the stones, hammer in hand and stuffing countless note books with dry facts about the rocks, and have called him a crank. The facts may seem dry, but behind him comes the chemist. Out of the geologist's net bag the chemist picks clays, rocks, and sand, and says this is good for glass, that will make a fine terra cotta, this dirty stuff is fine for *bisque*,<sup>2</sup> that mud is good for glass, that silt just the stuff for face-brick. No longer blind search

for the right thing. The geologist's map says it is there or at another place, and the chemist's report says this is for one purpose, that for another. Behind geologists and chemists stand the manufacturer, the potter, the glass-blower, the artist in terra cotta. They gather in the priceless facts collected by the men of research and by the aid of capital and labor turn the very rocks into forms of beauty and grace or give us new materials wonderful for beauty, convenience, and usefulness. Palissy to-day would consult the geologist and the chemist and reach results in weeks, when in his lifetime he spent years. His genius would find new beauty in new materials and his work would be a thousand times more valuable.

It is in this aspect we may take courage for further studies of the rocks. With all the wonderful advance in knowledge, with all the extraordinary speed at which new facts are learned from nature every month and almost every week, what is known compared to the unknown is as a grain of

sand on the beach to the sea. We should be glad that the pursuit of knowledge is made for us so easy and that research need no longer be a blind groping in the dark. There will, perhaps, never again be any need for such work as Palissy did. If such genius appears it will work on wholly different lines and accomplish far greater results.

In no country of the world have such treasures been found in the rocks as here. We have a great variety of materials for terra cotta, for stone ware, for the most beautiful ceramics and the finest and most brilliant glass. The geology of our country is an inventory of wealth, and every year millions of money are gathered from the rocks beneath our feet and made by skill and labor, aided by fire, into countless materials of use to men and women. The very ground on which we stand may cover up untold treasures. Geology is put in our hands as the key to unlock the rocks. Science and art try the rocks, as by fire, and from them springs up beauty in a thousand different forms.

(The end.)

## STUDIES OF MOUNTAINS.

BY ERNEST INGERSOLL.

### IX.

#### AS OBJECTS OF WORSHIP AND SOURCES OF INSPIRATION.

All men look upward, toward something higher, as the natural direction of growth. Every word in the language implying a moral betterment contains this notion. We speak of elevated ideas, of a lofty character, of a rising career, of superiority. Men have always thought of their gods and heroes as *above* them. The very word "divine" comes from a root meaning the sky.

Along with such aspirations men have felt terror at the great manifestations of nature because of their power to harm,—the lightning, the floods, the chilling blast; and awe for what was vague in appearance and mysterious in origin or mode of manifestations. Light makes plain and pleasant, hence good deities, the world over have been light-personalities; supreme over all, the Sun himself, deified by every natural religion and hidden in the name of all the great gods and heroes of culture-myths. Darkness obscures the world, depresses the mind and cloaks the mischief of malevolent spirits, all the more terrible for their invisibility.

None felt this more than the Jews and through them it has influenced the Christian cult. Jehovah and his Son in heaven are a blaze of light; the celestial city gleams in the effulgence of an endless sun; but mortals rejected of heaven are "cast into outer darkness."

What object could concentrate all these emotions in the wondering mind of the barbarian more forcibly than a mighty mountain! It towers remote, majestic, lone, far above the level of the plain, spurning the forests and sometimes even the clouds, master of the tempest and keeper of the lightning,—the culmination of the world visible to the pygmies at its base. The mountain is the first to greet the rising sun at dawn, the last to receive the lingering benediction of his rays, as if it were the favorite object in the universe. How much man owes to this favorite of heaven! Out of his gates rush the winds; down his furrowed sides sweep the floods, now the fertilizers of the verdant plain when his mood is beneficent, anon the besoms of his wrath. He summons at will the ferocious rain clouds, or secludes himself for weeks in mantles of mist, now gray, now bright; then he lifts the veil and stands enthroned under the azure

canopy in the full panoply of a sovereign crowned with jewels of snow, and radiant with a godlike glory.

These mysteries and majesty stir primitive men, and between their admiration and their awe, they say, "Lo, the mountain lives! He is a god, and commands our homage."

Hence in their groveling way the rudest savages have adored and tried to propitiate mountains, as fetishes who often smiled on them, to be sure, but were always to be placated lest they send storms or withhold the needed rain. This was a real worship paid to the mountain itself; its origin was in commingled feelings of admiration, fear, and gratitude, and its highest expression is found in the traditions of the early Hindoos who lived at the foot of the Himalaya.

"Their ancient songs tell us with what pious fervor they celebrated the 'eighty-four thousand mountains of gold,' which rear themselves heavenward in the light beyond the plains and forests. . . . Gaurisankar, whose peak pierces the sky, and the Chamalari, not so high but more colossal in appearance by reason of its isolation, are doubly worshiped as the great goddess united to the great god; their ice-fields are a bed of crystals and diamonds, the purple and gold clouds are the sacred veil that enwraps them. There above is the god Siva, who destroys and creates; there also, is the god Chama, the Gauri, who conceives and produces; from her are descended plants, rivers, animals, and mankind.

"In this wonderful growth of epic poetry and tradition have taken root many other legends relating to the mountains of Himalaya, all of which represent them as living a sublime life, either as goddesses or as the mothers of continents and nations. . . . In the flat countries, where the faithful had no mountains to look at, they built themselves temples, which with their rows of unshapely pyramids of huge blocks of granite, represented the venerated heights of Mount Meron. Perhaps it was a similar sentiment of awe for great elevations which led the Egyptians to construct the pyramids—those artificial mountains reared upon a foundation of sand and clay." (*Reclus*.)

It is not easy to disentangle here the original savage fetish



worship from the poetic idealization of later times; nor when we find a feeling like that exhibited even recently in Japan, where Christians were thrown into the lava-streams of a volcano to persuade it to cease its desolating eruptions, or now displayed by the timorous East Indians in regard to their fire-peaks, to say how well the mountain itself is separated in the believer's mind from some spirit dwelling in or upon it.

But the Greeks had passed this grosser conception and adored the mountains only as the throne of their deities. Almost all the heroic traditions of ancient Hellas, as well as the great events of historic Greece, were enacted about the foot of Thessalian Olympus—the citadel chosen by Zeus and the new gods when the Titans had been overthrown. "Then Zeus, the father of gods and men"—to read the story with the eloquent Reclus—"sat in peace upon the sacred mountain; his throne was placed upon the highest peak; by his side was the goddess Here, virgin and matron; around him were placed the immortals. A luminous atmosphere bathed the summit of Olympus and played amid the locks of the gods; never did tempests come to trouble the repose of these happy beings, nor rain nor snow fell upon the radiant summits. . . . No lamentation ascending from below disturbed the gods in their eternal quiet. Their nectar was ever delicious, their ambrosia always exquisite. They inhaled with relish the odor of hecatombs; listened, as if to music, to the concert of suppliant voices."

Never a mortal in those old days dare even try to climb into the presence of these snow-enthroned gods of Hellas. But time went on and Zeus and his peers vanished from Olympus as the purple mists are swept from its head by the earliest sun. Philosophy pointed the finger of scorn at the beautiful old myths, and science penetrated fearlessly to the loftiest pinnacles, to find them silent and solitary.

The gods were gone, but the throne remained, and, as before, aspiring humanity still bowed around its base. New divinities called new devotees to the consecrated Olympus. "There the Greek Christians worshiped the Holy Trinity instead of Zeus; they still look upon its three principal peaks as the three great homes of heaven. One of its loftiest points, which formerly, perhaps, bore a temple of Apollo, is now surmounted by a monastery of St. Elias; one of its dales, wherein the Bacchantes were wont to sing *Evoe* in honor of Dionysius or Bacchus, is inhabited by the monks of St. Denys.

"Gods bereaved, gods belated,  
With your purples rent asunder!  
Gods disrowned and desecrated,  
Disinherited of thunder!  
Now the goats may climb and crop  
The soft grass on Ida's top—  
Now Pan's dead."

I linger too long here, perhaps; but to the poet and priest, Olympus and Ida, Helicon and Parnassus are mountains outranking all the hoary heights of Andes and Himalaya.

Nor in Greece alone was this beautiful tale of the mountain-throned gods told and believed. The Alps had their worshippers. The German mountains were peopled with grand deities, now shrunken into kobolds and brownies, the mischievous trolls, or fairy benefactors of German folk-lore. Men still dig on the Alpine summits for the treasure which, it is believed by the peasants, some one or another of the mythical heroes of national tradition (to their ancestors a mighty and veritable god) buried there during his last hurried flight, when he stepped from crest to crest, splintering the summits with his heel and leaving his foot-prints here and there,—sometimes very plainly, as in the case of that

colossal impress upon Adam's Peak, in Ceylon.

The Scandinavian deities, whose names belong to our week-days and whose influence colors English thought yet, were dwellers among their glacial heights which are illumined, even at midnight, by the rays of the arctic sun; and on the fire-peaks of Iceland, swimming like "palaces of spar upon a sea of pearl," in the amber sunlight that could not penetrate the chill fogs underneath, or warm for mortals the wastes of snow and rock that encompassed it as with fortifications, stood their celestial city Asgard. Could any vision of St. John, or any figment of the imagination portray a more enchanting home for the gods than this Asgard on its glittering crags of ice?

Just as festivals of Christendom perpetuate the celebration, and often scarcely disguise the name, of some pagan rite, so modern worshippers have clung to the old feeling that the mountains are natural altars. And when the devotee of the old ascetic school, thought to find peace in self-mortification and rigorous separation from the world, what better spot could he choose than the cold and sterile solitude of a mountain top, sanctified by a long inheritance of holy tradition and example? Thus the loftiest residences in the world are those of the lamas in the Himalaya, between Kashmere and Thibet; and in Europe the monastery of "the pious monks of St. Bernard" overlooks all other habitations. Upon the summit of Ararat dwells a colony of religious men, in the belief that they stand where the ark rested. Tai-shan, the supreme mountain of eastern China, has been sacred since the world began, and upon its top, reached by a paved road, all the superior gods and principal genii have their temples or altars. The peak is itself an idol for the people.

Yet nowhere so thickly as in the Holy Land are homes of religion planted upon "the high places." No matter how much the Jews, and to a less degree their mediæval conquerors, owed to Canaanitish tradition the origin of the feeling of sanctity with which in the mind their hills were invested, there were later and better reasons for their adoration. "Men acquainted with the history of Moses alone at Horeb, or with Israel at Sinai, of Elijah by the brook Cherith, and in the Horeb cave; of the deaths of Moses and Aaron on Hor and Nebo; of the preparation of Jephthah's daughter for her death among the Judea mountains; of the continual retirement of Christ himself to the mountains for prayer, His temptation in the desert of the Dead Sea, His sermon on the hills of Capernaum, His transfiguration on the crest of Tabor, and His evening and morning walks over Olivet for the four or five days preceding his crucifixion—were not likely to look with irreverent or unloving eyes upon the blue hills that girded their golden horizon, or drew upon them the mysterious clouds out of the height of the darker heaven. But with this impression of their greater sanctity was involved also that of a peculiar terror. . . .

"The mountain ranges seemed separated from the active world, only to be fitly approached by hearts which were condemnatory of it. Just in so much as it appeared necessary for the noblest men to retire to the hill-recesses before their missions could be accomplished, or their spirits perfected, in so far did the daily world seem by comparison to be pronounced profane and dangerous; . . . and thousands of hearts, which might otherwise have felt that there was loveliness in the wild landscape, shrank from it in dread because they knew the monk retired to it in penance and the hermit for contemplation."

This is an evil influence exerted by mountains upon mankind through their religious sense; and the mediæval manifestation described by Ruskin (whose words I have just bor-

rowed to smoothly express my thought) arise from the same source as those bloody rites in "high places," which the Jews thought it their mission to crush in Syria, and the Spaniards in Mexico; or the sensual festivals of Apollo, danced and sung on the vine-clad slopes of Thessalian hills.

The reason why men have naturally turned to the mountains as the place for devotion is their power of impressing solemnly every poetic and sensitive soul. "Their terror," says Ruskin in another place, "leads into devotional casts of thought; their beauty and wildness prompt the invention at the same time; and where the mind is not gifted with stern reasoning powers, or protected by purity of teaching, it is sure to mingle the invention with its creed and the vision with its prayer. Strictly speaking, we ought to consider the superstitions of the hills, universally, as a form of poetry; regretting only that men have not yet learned how to distinguish poetry from well-founded faith."

(The end.)

## SUNDAY READINGS.

SELECTED BY CHANCELLOR J. H. VINCENT, LL. D.

[June 5.]

Why not become converted? Why not yield yourselves, body and soul, to God, which is a reasonable service? That is "getting religion"—to realize that we shall be most in harmony with the universe which God has made when we love and serve the God who made it. Now science calls this "adjustment to one's environment"; the Christian calls it "oneness with God." Philosophy knows this as "harmony with our surroundings"; the apostle speaks of it as "having peace with God through our Lord Jesus Christ." To my mind, the Christian's way of putting it is fullest of inspiration as it is of devotion.

It may be that one says, "I cannot give my will up entirely to another. Submit myself to God! I have my own aims." Be assured this is a barren as well as blasphemous assumption. It shows no independence for the rose-bush to demand a trial on the northeast corner of the house, or for the tree to demand the mountain peak smitten by a hundred storms and ten thousand adverse influences; none for the earth-worm which performs such gigantic work as an agriculturist in temperate zones, to determine to transgress the ordering of Providence and try to supplant with its soft body the armored termite in the tropics where the sun has baked the earth to rocky hardness. Just where it is placed it is doing God's work, nature's work; elsewhere it would be out of adjustment, and must perish. I should think it more absurd, more fatally so, for the human being to set his aims against God's aims; the lack of adjustment will surely crush him.

When, therefore, I ask you to be converted, to become as little children in the willingness to accept another's standard as binding upon you, I only ask that which science approves; but it is that which appeals to all our moral and spiritual faculties.

Through all the ranges of existence the standard is that of the most excellent. The leaves of the maple must arrange themselves around the branches in such wise as to catch the most light; the bee must make the shortest track and quickest time to and from his industry; the butterfly

It is this feeling and this part of the world's history which must be borne in mind in reading much of the literature, prose and poetry, that belongs to mountains, and in interpreting a great deal of the pictorial art which portrays their scenery. To go into an examination of what this influence upon literature and art has been, is beyond my space not only, but requires a mind trained far more widely than mine in both the history and criticism of art in all its branches—and, perhaps, nowhere has it been more affected than in architecture—and in *les belles lettres*. But I believe such examination would show that, apart from the melancholy which seems inevitable to the contemplation of the vast and lonely ranges, the literature and art born or nurtured under this inspiration would be noble and energetic beyond that traceable to any other natural stimulus.

To me, the mountains comprehend everything that is worth having in scenery or inspiration, and are inexhaustible fountains of delight to eye and mind and heart.

must sip from flower to flower to have in brightest colors its few hours of life; the physical man must keep the body in its best trim for doing the most work and receiving the best impressions; and can we now stop short of saying that the mental and spiritual man must attain his highest excellence? The obligation is laid upon everything to come to its best.—Rev. Dr. Henry E. Mott.

[June 12.]

A LITTLE BIRD'S SERMON TO A SERMON-MAKER.—I was in the act of kneeling down before the Lord my God, when a little bird in the lightest, freest humor, came and perched near my window, all the while hopping about from spray to spray, and thus preached to me:—

"O thou grave man, look on me, and learn something, if not the deepest lesson, then a true one. Thy God made me, and the like of me; and if thou canst conceive it, loves me, and cares for me. Thou studieth Him in great problems, which oppress and confound thee; thou lovest sight of one-half of His ways. Learn to see thy God not in great mysteries only, but in me also. His burden on me is light, His yoke on me is easy; but thou makest burdens and yokes for thyself which are very grievous to be borne.

"I advise thee not only to see God in little things, but to see little, cheerful, sportive things in God, as well as great, solemn, awful things. Things deep as hell, and high as heaven, thou considerest overmuch, but thou dost not 'consider the lilies' sufficiently. Every priest should put by his awful robes, etc., etc., sometimes, and go free. If thou couldst be as a lily before God, for at least one hour in the twenty-four, it would do thee good. I mean if thou couldst cease to will and to think, and be only. Consider, the lily is as really from God as thou art, and is a figure of something in Him,—the like of which should also be in thee. Thou longest to grow, but the lily grows without longing, yes, without even thinking or willing, grows, and is beautiful both to God and man. Think of that.

"In conclusion, I remind thee that God has 'many kinds of voices in the world, and none of them is without signifi-

cation.' But I perceive that thine ear is open only to voices of one kind. The danger is, under the conceit of being the more godly, of becoming monstrous, and not quite Godlike. Excuse a little bird. I am but one of the 'many kinds of voices,' which God has in the world."—*John Pulsford.*

[June 19.]

The body is more than a shell, more than a garment, more than a house; it is the married, co-operating partner of the spirit. As the soul is fitted to be a habitation of God, so is the body fitted to be the habitation of the soul.

The soul is no sooner affected by the presence of God, than the body also is affected. In a moment, in the twinkling of an eye, the body takes on the conditions of the spirit. If the soul be in distress, the body also is in distress, and refuses food, or if food be taken, the stomach has not spirit enough to digest it. In hours of social delight, the body is as much helped and comforted as the spirit; all its senses become keen, the appetite is lively, digestion is vigorous. Every hour of life, the body is receiving its condition from the spirit. If you pray, not only the soul, but the body also receives divine influence. If you sin, the curse sows itself in your soul and body, at the same time. The blood and brain of a meek, humble, heavenly-minded man carry qualities in them, which the blood and brain of a worldly-minded man do not.

Two men being dead, the one a regenerate, and the other an unregenerate, man, not only their souls are in different conditions and different worlds, but their flesh and bones retain the distinctive qualities of their two souls. There are virtues latent in all bodies, corresponding with the souls which lived in them. Elisha slumbers in his bones. As the man was, such are his bones. Joseph's bones do not belong to Egypt.

Originally (I speak not of the Mosaic creation, which was the last and not the first creation of God) body was as divine as spirit, and is capable of being as divine again. Vestiges of its divine powers are still inherent in the body.

See the blind girl reading with her finger end, and say whether there is not something divine still lingering about the body. Think that the very skin, the outer skin, by light and rapid touches, should be able to gather up the divine sense from the holy page; and that from the extremity of her finger she should feel that divine sense filling, charming, and comforting her whole soul and body.

You have, perhaps, heard the story of the blind girl, whose hard work had blunted her fingers, so that she could no longer read her Bible. Her Bible was her most precious companion, her dearest friend, and the voice of God to her soul; how could she lay aside her Bible? She took a pen-knife, pared away the thick skin, and read again; but now she could not work. What was she to do? She *must* work; there was, therefore, no alternative, she must keep her fingers blunt, and lay aside her Bible. In despair she took it up, saying to it, "Dearly as I love thee, we must part"; and putting it to her lips, to give it a farewell kiss, she discovered to her unspeakable joy, that there was soul enough in her lips to read the precious book.

There is a direct relation, and, when all the links are active, and the channels open, a living communication between the eternal God and the outmost cuticle of the body. Marvelous body! Marvelous in its ruin! What shall it be in its restoration!—*John Pulsford.*

[June 26.]

"Abide with us: for it is toward evening." As ripe fruit is sweeter than green fruit, so is age sweeter than youth. As harvest-time is a brighter time than seed-time, so is age brighter than youth; that is, if youth were a seed-time for good. As the completion of a work is more glorious than the beginning, so is age more glorious than youth; that is, if the foundation of the work of God, were laid in youth. As sailing into port is a happier thing than the voyage, so is age happier than youth; that is, when the voyage from youth is made with Christ at the helm.

The voyage of human life under any other head than Christ, and under any other wind than the wind of His Spirit, is sorrowful beyond all expression. Whatever port is reached, the port of Peace, the joyful Eternal Home, cannot be reached. The vessel in which we are crossing the sea of mortal life, is always driven by contrary winds, till the Lord embarks. All voyagers who know the pleasantness of having Christ on board, and the certainty of getting safe to land, beseech Him with all their hearts to abide with them. The loving, longing prayer, *Abide with us!* only comes from those who have previously been acquainted with Him.

*Abide with us,* and converse with us about the "things not seen as yet." Tell us of the life after death. Bring down upon us the holy powers of the world to come. *Abide with us!* Our depraved nature will grow weak in Thy Presence; the sweet awe of Thy Spirit will restrain us from evil; the fever of worldly lust will die out of our hearts, if Thou art near. Pardon for all our sins will flow through and through our souls, and wash out all the stains, if only Thou dost bear us company. Journeying with Thee, we shall undergo a complete change of nature, Thy Holy and sweet Spirit ever in contact with our spirit, we shall become new creatures as we go along.

*Abide with us,* that we may see Thee in every thing, and every thing in Thee. Our joys and our successes will not hurt us, if Thou art in them. Our crosses and sorrows will not lie heavily upon us, if Thou art in them. Let us grow older under the charm of Thy Presence. In time of sickness and need, let us not have Thee to seek.

"Abide with us: for it is toward evening." Our sun will soon be setting; already shadows are stealing over our sky. Abide with us, and make our evening bright with Thine own Light. Our way will grow darker and darker, if Thou art not with us. It cannot be dark where Thou art. We are afraid of everything without Thee. We are afraid of nothing with Thee. We are Thy creatures, Thou hast loved us, and died for us, *Oh, abide with us!* Stay with us through the night, and introduce us to the Morning of Immortality.

It is written: "They constrained Him: and He went in to tarry with them." My soul wilt not thou also constrain Him?—*John Pulsford.*



## THE WOMAN'S HOUR IN FOREIGN MISSIONS.

BY FLORA BEST HARRIS.

While there still exists enough of what may be called the Oriental view of woman, in the modern Christian church, to show the need of a new Pentecost, and of some newly anointed apostle to say to her, "Your sons and your daughters shall prophesy," yet so noble a band of brothers is now in sympathy with the Christian ideal of womanhood and the spirit of the present day that ready hands of help are outstretched to those who alone can become "laborers together with God" in redeeming the homes of heathendom.

Under the conditions of modern life, numbers of cultivated Christian women are not destined to be the founders of homes and self-helping, helpful toil for this increasing army of would-be workers, has become a necessity. This necessity is balanced by an equal need on the other hand. Worse than orphaned waifs at home and abroad call piteously for mothers of humanity, and the "bitter cry" of outcast cities everywhere bids the church employ her daughters in toil which shall make home and heaven a possibility to sin-cursed multitudes. Not to speak of untutored millions in uncivilized regions, in the civilized Orient there awaits the woman evangelist, three hundred million Buddhists for whose eternal rest no lotus flower of paradise has bloomed; while the needs of ninety million women in Hindoo homes or zenánas, and eighty millions more in secluded Moslem harems, call urgently for helpers skilled in the divine art of saving souls and healing bodies. While echoes of "the glad tidings of great joy" may reach the ears of some poor captives, women-heralds alone can "preach deliverance." Confronted by these great needs, what is Protestant Christianity doing to fill them?

While we cannot say, "The women that publish the tidings are a great host," the Scripture is being verified, for out of the seventy-five existing societies, twenty-five organizations in England and America employ women alone.

Before noting the efforts of these later agencies, however, who could refrain from looking back over seventy-five years to a day when faith alone saw the golden gates of opportunity thrown wide open? It was a glorious, heroic day, in truth, and yet its dawning plans for evangelization of the world were marred by a strange fallacy.

When commerce and science send forth their first pioneers to prepare the way for civilization on perilous coast or in unknown land, they follow nature's common sense law that man shall be pioneer in material conquests. Far otherwise the policy of the American Christian church; unlike her Founder in His earthly ministry, she sent forth in those early days of modern missions a few scattered apostles with their wives and little ones "as lambs among wolves." If "missionaries' graves" were needed, the supply of women-martyrs was certainly adequate; yet from these first graves sprung living enthusiasm, from lonely burial places on the Isle of France or distant Amherst there grew a mighty tree with "leaves for the healing of the nations."

Since in these instances, the surrendered lives of the martyrs became the seed of a future church, we cannot find it in our hearts to say—"whence this waste?" But for the many pioneer women whose names are scarcely noted, fallen early by the way, and for the little children whose tender feet soon led them into unknown graves, we cannot but offer a passion of regret that valuable lives were held so cheap.

Whether the special sacrifices thus demanded were unlawful or needful, the heroic element was marvelously developed in these pioneer women, and the romance and tragedy of their lives when fully written will form an inspiring volume in the church history of a new apostolic age.

From exalted natures such as Mary Moffat throwing the light of her heroic courage into the shadows of the Dark Continent; Mrs. Boardman with her little company of Karens,\* widowed, desolate, yet undaunted, bearing through jungle-wilds the story of her risen Lord, unmindful of savage tigers and savage men; Fidelia Fiske—incarnate "faith working by love"—among her Nestorians in distant Persia, brave Miss Farrington remaining "alone to trust in God" amid her comrades' graves in Liberia,—from all, since pen cannot here record their names, of that earlier company of "immortals" who wrote on human hearts, and are now crowned amid the "great cloud of witnesses" come voices and inspirations. And "thus compassed about," we of to-day should find no achievement too high for us.

In answering the question,—*"What is being done?"*—we must not forget the organized efforts of pioneer bands and societies in the various churches.

These were forerunners preparing the way for the larger life and greater achievements of our societies to-day; and had not a noble van-guard of the army of Christian womanhood gradually led the church to its present plane, there would, perhaps, have been no "silver anniversary" honoring the mother of our modern missionary organizations, as commemorated in a little pamphlet which lies before me.

Before the general boards had awakened to the fact that they must either invite, "elect ladies" to join them in council, or permit special organizations for the evangelization of pagan women, Mrs. Doremus and other devout women, representatives of some of our principal cities, organized the Union Missionary Society. Its distinctive feature was the sending out of unmarried workers to carry the gospel into secluded heathen homes, and naturally, India's zenánas with their prisoners starved in brain and heart, first engaged its consecrated laborers; later its work extended to Burmah, to classic Greece, to Cypress, to China, and to the islands of Japan, while almost every part of the world accessible to Christianity must have shared in its aid and influence.

One of the ablest missionaries now employed by the Baptist society in Burmah, manifestly "called of God," found none to send her, eighteen years ago, till this society extended to her its hand of help. We can hardly overestimate the influence of its pioneer efforts, in the formation of other societies; and in spite of its financial losses, through the organization of distributing agencies in various churches, it supports to-day, forty-nine missionaries, finds five hundred sixty-six zenánas open to workers, has two thousand two hundred sixty pupils exclusive of day school pupils and children in orphanages, and sends contributions to mission lands other than its own.

The board first organized after that of the Union Society was a branch of that alphabetic, and justly famous society, the A. B. C. F. M., and now after eighteen years of experience in the foreign field, with its sister societies of the interior and the far West, it supports about a hundred fifty

women; of these a number are missionaries' wives who would otherwise be cared for by the general board, but a hundred or more are unmarried women wholly devoted to the work. The woman's boards, five in number, of the Presbyterian Church north, like those of the American Board, aid the parent society by supporting the wives of their missionaries, and employ beside about one hundred twenty single workers. The women of the Methodist Episcopal Church of our northern states, are represented abroad by seventy missionaries, and the organization fostered by the women of the northern Baptist Church has also laborers in many lands. While the chief mission stations of most of these societies are in India, China, and Japan, their representatives may be found in Mexico and South America, in lonely Micronesia, in untutored Africa's shadowy lands, in Syria, Persia, Asia Minor, and other distant fields.

In looking over the fields occupied, it seems strange that a country so open to the gospel as Siam should have received so little attention from the church, and that the only woman's society engaged in the work for Siamese women should be the Presbyterian Board with its little band of faithful toilers. Remembering that Ann Hazeltine Judson translated the first Christian book printed in the language of that land, it is especially appropriate that the missionary women of to-day should enter the field in force. Perhaps they may inspire Presbyterianism in its various branches to preëempt the work among the Siamese, form a United Presbytery as in Japan, and take the so-called "Kingdom of the Free" for the King of kings! If this were the place for appeal, I would send one ringing into the ranks of the Methodist and Presbyterian societies, the only ones at work among the women of long closed Korea. Their apostles are worthy the name; but to the daughters of the waking Korean nation, *not one medical woman has yet extended a hand of healing*. While to the Union Board belongs the honor of first devising plans for woman's work as a physician among Oriental women, to the Methodist Episcopal society was given the privilege seventeen years ago of sending the first medical worker; but so great is still the demand for medical aid that one stands appalled at the inadequacy of the supply. More than twenty-nine thousand women were in 1885 treated in the hospitals and dispensaries of the last named society, alone; but what are these among the many?

The career of the woman's society of the Methodist Episcopal Church South, though brief, has been marked by genuine zeal and consecration, and it is now represented abroad by eleven missionaries, employing also several more in the Indian Territory and Mexican border. To this and kindred Southern societies is opened "a great door and effectual," through their ability to train evangelists for those dark shores now appealing to Christendom; since only through Africa in America can Africa afar be redeemed. \* \* \* The Woman's Auxiliary of the Protestant Episcopal Church is strictly what its name implies. Eleven or twelve single women are engaged in the foreign field, but are under the control of the general society, and the auxiliary generously contributes toward their support beside aiding missionary work in many directions. It also pays insurance on the lives of missionaries for the benefit of their families, a work not attempted, so far as I know, by any sister society.

Among smaller denominations having separate organizations of women, of considerable experience, is the Reformed (Dutch) Church. Mention of the half-dozen or more single workers it employs in mission lands gives no real index to its energy and usefulness.

The women of the Lutheran Church, long active contributors through their general board, organized a few years ago,

are now represented abroad by two pioneers; their history is that of the women of nearly every church of influence in the United States, however small its membership. Especially noteworthy in this connection is the revival of missionary enthusiasm in the Society of Friends, which about four years ago took shape in formal organization. Its policy, at first, was to labor through older societies, and as one of its most gifted supporters modestly says, "to try to learn *how*." It is fast learning "how," as is attested by earnest missionaries in several foreign fields.

The number of women employed by this "Society of Christian Endeavor" together with those sent out by the United Presbyterian, Southern Presbyterian, Southern Baptist, Methodist Protestant, and a few other churches whose efforts can be gauged only from the meager information at hand, may be estimated at about seventy. It is thus evident that with the larger societies they form a "school of the philanthropies" supporting upward of five hundred women able to give their full time to direct evangelization. In addition, they render efficient aid to the married workers, and enlist a noblebody of native girls and women in propaganda, some estimate of whose labors may be formed when we note that in one instance, seven alone gave regular instruction to nearly a thousand women in a year, at the same time carrying the gospel to twenty thousand. \* \* \*

The qualifications required of candidates, though slightly varying in the different societies, are substantially as follows:—"Spiritual gifts" and special consecration to the cause of missions; sound health to which medical certificates must testify; an excellent English education and acquaintance with at least one foreign language; extensive Biblical knowledge; successful experience in teaching, or in medical practice. The "required age" of candidates may be said, in general, to range from twenty-two to thirty-five years, although in exceptional cases older and even younger workers are sometimes accepted. While a thoughtful girl whose leisure has been consecrated to Christian work from the very border-land of childhood, may possess a maturity not always shown by older women, yet as power of physical endurance can scarcely be tested under twenty-five, to require a candidate to wait till she has reached that age, would be a wise provision.\*

Musical skill is necessary in some cases, although not always demanded, and some knowledge of nursing is also advantageous; while the educated trained nurse is destined to become more and more desirable as a candidate.

The salaries paid usually range from three hundred or three hundred fifty, to seven hundred fifty dollars.

There are still defects in our methods, some of which can be remedied by vigilance, others only by larger financial resources. While the general high character of our workers is admitted, we need a greater number of representative women, or of young women possessing "the promise and potency" of a large and beneficent womanhood—that is, representative women-to-be.

The lack of reserve force is seriously felt both here and at the front. The British Civil Service with its young linguists in training for future service, might well serve as our model abroad.

A desideratum in each society is a manual or hand-book containing condensed information in regard to stations occupied, their climates, prevailing diseases, characteristics of the natives, peculiarities of the language, modes of evangelization best suited to the people, etc. These manuals

\*The valuable papers published by the various societies contain the names of Corresponding Secretaries who will acquaint applicants for missionary service with the steps to be taken and furnish desired information.

printed in cheap form, should be placed in the hands of every accepted candidate to aid her in determining the field to which she is mentally and physically best adapted. When a new field is to be entered, money and force would be saved in the end by the preparation of a brief monograph of the same kind, for the use of expectant missionaries.

In some of the leading societies, an acceptable candidate must agree to give "five years of single service" to the cause. No provision has, perhaps, occasioned more absurd miscomprehension than this most reasonable of demands. A corporation has a right to make its own requirements, and it would be the worst possible economy to pay for the passage and outfit of its agents without some guarantee of an equivalent in the matter of service. The term of duty, however, should be graded according to salubrity of climate, as eight or ten years in a comparatively healthful country taxes the constitution of a worker less than five years spent in a trying climate. Seven years is a good average.

Five years of service it must be added, cannot by any means be considered an equivalent for the expense and responsibility incurred by a board in sending out agents; it is only in the rare cases where a woman has what may be termed "missionary genius" that with the study of a strange language and people absorbing her energies, she can accomplish enough in that period to compensate her society for its outlay. After five years of earnest effort in study and direct work, a missionary just begins to feel equipped for duty; and, *as a rule*, it is practically folly to send workers who have no expectation of remaining in the field beyond the prescribed term of service. The lenity of our societies in this respect may offer a subtle temptation to bright girls fond of travel and adventure.

In some of our mission lands, there is at present an imperative call for more and better literature, Christian in sentiment; but the few workers at each station find it impossible with the demands upon them, to furnish literary work of the quality needed. The rare exceptions where missionaries of unusual physical vigor succeed in literary achievement amid the absorbing interests of the general work, only prove the rule; and our societies should tax their resources to the utmost, that without neglecting the duty of personal evangelism, some of their gifted representatives may be set free to enter "the open door" of literature.

There is one defect which the woman's boards cannot themselves remedy, but which must be repaired by an agreement on the part of all Christians. If the law-making apostles of modern Christendom possess a tithe of the robust common sense and practicality evinced by St. Paul in dealing with his primitive churches, they will not require the timid inmates of zenána, harem, or guarded home, shrinking with fright, to receive the sacraments from men, until prolonged training in self-respect and self-reliance has prepared them for the ordeal of publicity. It is unchristian, in matters religious or otherwise, to turn the electric light of the nineteenth century with cruel suddenness on these long-blinded eyes; yet in spite of this fact, though, as a rule, the woman missionary is in native ability and culture, the peer of her brother, and in self-consecration often his superior, though both are baptized into the same baptism, anointed by the same spirit, called to equal ministry, the church refuses the seal of ordination to the one, and bestows it upon the other.

While the gaze of most of the busy Chautauquans scanning these pages will turn to the ripened harvests of the

home field, yet I hope the eyes of some among them will behold lands afar-off, while hand, heart, and brain toil for the womanhood of other races. To such, may one who has served a fragmentary "apprenticeship" in the foreign field, offer a few suggestions?

Once assured that the foreign field is your place, if possible, except in some unusual emergency, do not consent to go at once. A year's notice is none too long for an accepted candidate, and unless she has had considerable experience in teaching or in home evangelistic work, is entirely too short; but even supposing that you are well furnished in such experience, the leisure hours of a year after the fateful decision is made, may be profitably spent in careful study concerning your field, and in some instances a beginning in the language may be made. This necessary preparation can be made better in your native climate than in a less congenial one, with all heathendom pressing down upon your energies. Perhaps I am over anxious in this regard; but my "missionary" conscience has so often ached over the waste even yet occurring in the general societies, through the appointment to foreign service of workers untested and inexperienced in home mission fields, or pastoral work, that I cannot withhold an earnest admonition. The well of human sorrow and of human error is deep, but when sent out, ignorant alike of his own heart and the hearts of his fellow-men, it is years before the half-disciplined young missionary has wherewith "to draw."

On entering the service you will find that your first duty as a missionary is to gain the hearts of your chosen people. Loving-kindness is the only irresistible logic, and happily for the foreigner, sympathy speaks a universal language. Habits harmless in themselves, and even our just rights must sometimes be set aside, if we would win our way into hearts and homes. A double supply of tact, patience, and self-control is needed to accomplish this, and with such an end in view, no sacrifice is too great or too trivial. If any missionary, however able, advises you as one did a friend of mine, to turn toward a supposed "inferior (?) race" the front of a superior, give no heed; for although to be superior is to win success in lifting up humanity, to *feel* superior is to achieve failure. Courteous deference to the customs of those among whom our lot is cast, is also of importance, except where these directly conflict with the decalogue of morals or of hygiene.

In a word, to become a true missionary, it is necessary to be a human savior, giving one's self to a *people*, as Christ gave Himself to a *world*. If you ask,—"What are the compensations for life-exile among an alien people?"—I answer that the rewards of missionary service are numbered with the eternal certainties and are "bright as the promises of God."

Can there be a higher destiny than to aid in molding the inner life of a nation—a fairer fame than to live in the history of an apostolic Christian church?

Is there a nobler memorial than one fashioned, not of cold marble or crumbling stone, but of warm, human hearts and imperishable souls?

Such are the compensations waiting for a missionary who gives the best blood of his nature as a sacrifice for the uplifting of a people, who daily *lays down his life* for them in self abnegation. If these be insufficient, look toward the prophetic dawn kindling the horizon of a new era in the life of so-called pagan nations!



## PRACTICAL SUGGESTIONS ON ENGLISH COMPOSITION.

BY PROFESSOR T. WHITING BANCROFT.

### V.

#### KINDS OF COMPOSITION.

In the preceding papers attention has been directed to the form of thought in composition; in this, the last paper, the subject will be the material of thought. We shall consider, not how to write, but what to write.

The first question to answer is, What shall I write about? This is an important question. When Mrs. Stowe decided to write a story entitled "Uncle Tom's Cabin," her choice of that subject was the beginning of a world-wide fame. Who would have thought that John Bunyan tagging laces in Bedford jail, with only two books, the Bible and Fox's "Book of Martyrs", could compose an allegory that would make his name immortal? Sir Walter Raleigh was imprisoned as long in the Tower of London as John Bunyan was in Bedford jail, but only students of literature ever hear of Raleigh's "History of the World," which he wrote during his captivity. Let every writer realize then the importance of choosing the right theme.

Beginners in composition are inclined to write upon general subjects. If left to themselves they will choose such themes as Patriotism, Beauty, Music, Art. James Russell Lowell could write an eloquent oration on Patriotism, John Ruskin could prepare a matchless paper on Beauty, John Hullah delivered admirable lectures on Music, and Sir Joshua Reynolds uttered impressive discourses on Art. But a beginner could not write anything worth reading on any of these broad subjects.

When a general subject occurs to the mind, the first step to take is to narrow it, or select some part of it. This procedure will enable the writer to fix his thoughts on some definite features of the theme. If instead of Patriotism, he should take the Patriotism of Milton, he would find that he could center his ideas much more readily on a theme like this.

When he has chosen his theme shall he begin to write at once? By no means! He should first strive to recall what he knows about the theme, in order that he may find out wherein his knowledge is defective. Then he should seek the best sources of information before he attempts to write at all.

When the writer has thoroughly informed himself on the subject and made working notes of all the material he has acquired, he is then ready to arrange his material. To do this he must make a draft or plan of the theme he intends to discuss. Let us take a simple example:—

Theme—The Patriotism of Milton.

Introduction—Milton's a scholar's Patriotism.

- |                 |   |  |
|-----------------|---|--|
| A. His Services | { | 1. His return from his travels.                    |
|                 |   | 2. His office of Latin Secretary of the Council.   |
| B. His Works    | { | 1. His Iconoclast.                                 |
|                 |   | 2. First Defence of the English People.            |
|                 |   | 3. Second Defence of the English People.           |
|                 |   | 4. His later tracts in behalf of the Commonwealth. |

Conclusion—His Devotion to the Lost Cause.

A plan like this would suffice to illustrate one kind of composition. There are three kinds,—explanatory, argumentative, and persuasive. Under one or more of these divisions all writings will come.

The object of explanatory composition is to make clear

some fact or truth, or to exhibit some scene or event, or to inform the reader on some subject either new or old. The theme must be so discussed as to hold the attention, and not cause weariness to the reader's mind. There are four principal ways in which explanatory composition may be divided: exposition, description or narration, explanation, and comparison.

Exposition, as the name implies, is setting forth in order the ideas or thoughts suggested by the theme. Strictly speaking, exposition is a scientific method and is used to impart exact knowledge by means of the technical terms of science. But a popular use may be made of this method by adapting it to a familiar discussion of themes. When such an adaptation is made, instead of technical terms, language less precise and definite, but more easily understood is used, so that the general reader may acquire a knowledge of the subject treated. Themes thus developed in a popular manner are limited to special views, that the discussion may not be wearisome. Thus instead of the general subject, Art, the treatment may be limited to Evidences of Progress in Household Art. By comparing the early numbers of the *Edinburgh Review* with those of recent publication the inquirer may ascertain that themes are now less general than they were at the beginning of the present century. Knowledge has so increased that only limited views of subjects can be adequately discussed within the limits of a single paper.

Description is to composition what painting or photography is to art. The descriptive writer endeavors by means of words to present to the mind a scene which the painter would present to the eye by means of colors. The painter has many advantages over the writer, but the latter has one great advantage in that he can interpret every scene which he presents, while the painter, unless he calls in the aid of language must depend wholly upon his painting to explain itself. Success in description will depend upon the choice and arrangement of his material, and also the facility with which the writer depicts his theme in appropriate language. An ill-adjusted stereoscope offers a blurred image to the eye, and an ill-adapted description presents a confused scene to the mind. As the young artist cultivates his taste and improves his skill by familiarizing himself with the masterpieces of the great painters, so the young writer gains a similar advantage by a study of the masters of descriptive style.

To distinguish between narration and description is to note that by the former, scenes or events are presented in order of time, whereas by the latter, they are presented, as nearly as possible, in order of sight. The descriptive writer must have constantly in mind the perspective of the scene he presents; the narrative writer must have before him the succession of the events. At the present time there is a tendency in art to present common scenes from every-day life; so there is a disposition among modern writers to describe familiar home-like scenes for the entertainment of their readers. It was much easier for Boswell to write a life of Johnson, than it would have been for Johnson to have written a life of Boswell. The author of "Rasselas" could hardly have made a whale out of so small a fish. To write in the present vogue of narration and description requires the insight of a George Eliot and the touch of a William Black.

A descriptive theme may present to the reader an object of sight or an object of thought. The character of a man may be treated as a subject of thought, just as easily as his person may be described to the eye. When this abstract view is limited to a single quality of the subject, like a single trait of character, the method of treatment is sometimes called explication. This as its name suggests is more difficult than the former ways of discussion. It unfolds those deep underlying qualities of a subject, which do not appear to the superficial observer. With the increase of comprehensive knowledge this mode of treating subjects is coming more and more into use. The latest issues of the leading magazines furnish three themes in explication,—Theology as an Academic Discipline, The Scientific Bases of Anarchy, the Basis of Individualism. As the field of the specialist enlarges, this method will be in increasing demand.

Another variety of explanatory composition is to bring into view two or more different subjects or two or more aspects of the same subject, in order that they may be compared or contrasted with each other. As in art proper shading serves to bring out an object in bold relief, so contrasted views of a theme enable a writer to set it forth with greater vividness. In unskillful hands this is a dangerous method, as there will always be a strong temptation to make a contrast by altering or toning qualities to suit the subject. An enemy said of Macaulay that he would not hesitate to sacrifice a reputation for the sake of an antithesis. Yet when a comparison is properly made, it brings out each part of the theme with greater effectiveness than either could have presented by itself. For example, the reader would get a better idea of Saladin and Richard Plantagenet as they are contrasted in "Ivanhoe" than he would have obtained, had the great novelist made no such contrast.

In argumentative composition the theme takes the form of a proposition or statement. The primary meaning of argument is to fight with the fists; and members of Congress sometimes return to first principles. Advancing civilization that lays aside war for arbitration also replaces the heat of invective with the calm amenities of deliberate discussion; yet argument always implies difference of opinion, and difference of views leads to discussion.

In argument we compare the subject and the predicate terms of a proposition to prove that they may be united in one term or else to prove that they cannot be so united. For example, one writer attempts to prove that a penny postage should be universal. From a strictly rhetorical point of view what he attempts to do is to unite those two terms and so make the *universality of penny postage* an accomplished fact. An opponent will attempt to prove that penny postage should not be universal, and so prevent the universality of penny postage from being an accomplished fact.

In endeavoring to unite the two terms of the proposition the current of thought or course of argument may be directed either from the subject to the predicate, or from the predicate to the subject. In the first case the argument is called deductive, in the second case it is called inductive. Sometimes propositions will vary in the amount of thought they contain or the ground they cover. In a simple narrow proposition the course of argument in deductive argumentation will be directed from the subject term itself to the predicate term; but in a broad proposition that expresses a long range of thought, instead of beginning with the subject term itself you must take the broader idea which that subject term suggests. For example, take the following theme:—

Lord Clive's Administration in India was Serviceable to the Crown.

In directing the course of argument from subject to predicate we begin, not with Lord Clive's administration, but with the broader idea which the subject term indicates,—Civil Service in India. The following series of arguments may serve to unite the two terms.

A. Deductive, Subject to Predicate.

1. India needed a powerful governor.
2. India was ruled by nabobs.
3. India was well adapted for commercial prosperity.
4. India needed a ruler well versed in principles of government.
5. India wrested from the French, became an English colony under Clive's rule.

Therefore Lord Clive's Administration was Serviceable to the Crown.

B. Inductive, Predicate to Subject.

Here the argument is confined to an analysis of the *serviceableness* of Lord Clive's administration.

1. Lord Clive was a skillful leader.
2. He exercised a firm but temperate authority.
3. He successfully managed the affairs of the East India Company.
4. He was an able financier.
5. He was a wise statesman.
6. India became a profitable colony under his rule.

Therefore Lord Clive's Administration was Serviceable to the Crown.

Comparing these two kinds of arguments we notice that the deductive, though suggested by the general idea of the subject term, comes from without the terms of the proposition; while the inductive, suggested by the predicate term, comes from within the terms of the proposition. The former are sometimes called synthetic, as they are combined or gathered from without; the latter are called analytic, as they are resolved or separated from within.

From a logical or scientific point of view deductive arguments are those which lead the mind down (*deduco*) from the general to the particular, from cause to effect, etc.; inductive arguments are those which lead the mind up (*induco*) from the particular to the general, from fact to law. The exact correspondence of rhetorical and scientific deduction and induction, is seen from the fact that in arguing from subject to predicate the proofs are more general than the statement to be proved, but in arguing from predicate to subject the proofs are narrower than the proposition to be established.

The advantage of the rhetorical method is that it serves both to discover and arrange proofs. Though patient application is required to master it, it is peculiarly adapted to the needs of the modern thinking world, since it enables the writer to employ both kinds of arguments, in cases where both kinds of proof are needed. Writers of an abstract, speculative turn of mind are inclined to the exclusive use of deductive arguments. This tendency causes their writings to be vague and general. Writers of a concrete, practical turn of mind are disposed to make exclusive use of inductive arguments. This disposition causes their writings to be narrow and special. The rhetorical method of argumentation by accustoming the writer to employ both kinds of arguments not only induces a truer habit of investigation, but also tends to a broader and more comprehensive discussion.

The best way to become skillful in the use of this method is to analyze the works of the best argumentative writers to enable the mind to discriminate between the two kinds of arguments, and then make a series of argumentative plans which shall contain both kinds of arguments. Those who

have inventive skill had better begin by making plans of their own.

Persuasion is that kind of composition by which the reader is induced to act by reason of the subject presented to his mind. The reader may gain a clear idea of the theme by explanatory methods; he may be convinced of the truth of a proposition by argumentative methods, but he may not be led to action in view of the theme discussed unless the persuasive method is employed. The ancient writers greatly enlarged the domain of persuasion. Aristotle defined rhetoric as the art of persuasion on all possible subjects. But in modern times owing to defective methods of education, which develop the intellectual nature at the expense of the emotional powers, the sphere of persuasion has been greatly reduced. Persuasion is now limited to that kind of composition which influences the will.

The human will is influenced by motives. The tendency of our age to strengthen the intellect and repress the emotions, though it has narrowed the sphere of persuasive composition, has in fact widened the range of motives. A motive may not spring from the emotional nature, it may not be the product of affections or passions. Whatever induces the will to act whether intellectual or emotional is now regarded as a motive. According to this view, motives may be explanatory, convincing, or inducing. An explanatory theme may be made persuasive in treatment when each fact is so addressed to the mind that the will is influenced thereby. An argument may become a motive when it is presented in

such a manner that it appeals directly to the will. A strictly inducing motive is drawn from the emotions or passions, from reason or conscience.

There has probably been no age of the world in which an appeal to the affections or passions is regarded with so much disfavor as it is at the present time. He who by tongue or pen brings his fellows blindly under the sway of passion is certainly a dangerous foe. Nor is he less dangerous who seeks merely to rouse the passions of men without directing action to good ends. The mere sensationalist is to morals what dynamite is to Houses of Parliament. The whipping-post or the ducking-stool might possibly be restored for those who under a free and enlightened rule prate wildly of anarchy.

Yet the writer in our day who aspires to power, to true persuasive force, seeks the greatest influence that one human being can have over another. Not by mere blind appeals to the passions can this great influence be won. By clear explanation, by cogent conviction the true persuasive writer prepares the way for a judicious use of those motives which are as stirring as they were when uttered at the foot of Ebal and Gerizim, or when thundered through the market-place at Athens. If we agree with Novalis<sup>2</sup> that character is a finely fashioned will, then only those who by mental discipline, broad culture, and religious self control have acquired character themselves, can hope to have that true persuasive power that molds the wills of others to their own.

(The end.)

End of Required Reading for June.

## THE ENGLISH WORD.

BY ELIZABETH P. ALLAN.

(Du Guesclin, having received the oath of surrender from the fortress of Randon, died before the gates were opened, July 13, 1380; but the English commandant marched his soldiers out and laid the keys on the constable's bier.)

The fight is done;  
The day is won;  
The English fort must yield.  
And soon or late,  
All share this fate,  
When GUESCLIN takes the field.

From sun to sun,  
(The terms so run,)  
Du Guesclin grants them grace;  
And at the dawn,  
To-morrow morn,  
They swear to yield the place.

'Tis dawn, but lo!  
Another foe  
Stands by Du Guesclin's bed,  
And claims him now,  
And seals his brow;  
The constable lies dead!

"Ha! close the gate,  
'Tis not too late."  
The soldiers cry aloud;  
"We'll bide us here;  
What is to fear  
From a dead man in his shroud."

"Nay, by my word  
As English lord,"  
The commandant replies;  
"I'll yield the key  
On bended knee,  
A promise never dies!"

The wax lights clear •  
Shine on the bier  
And on the English lord;  
He bends his knee,  
Gives up the key,  
And keeps his English word!



## THE MOHAMMEDAN COLLEGE AT ALIGUHR.

BY BISHOP JOHN F. HURST, LL. D.

When the Mohammedan broke up Persia, and put an end to the conditions which had lasted since the time of Cyrus, he could not keep away from India. It was the world's richest garden. Failing to-day, he renewed his attempt on the morrow. His defeats covered centuries. He was a poor student of history. He knew no past. He was the child of the hot Arabia Deserta, and hence his passion was green meadows and the wealth which other hands had gathered. He followed in the path of Alexander, though without knowing it, and his habit was, in spite of his record of bloody triumph, to be driven back again. But he finally passed through the Afghan gates, and filed down into the valley of the Indus. Then it was a question of only days as to his getting to the valley of the Ganges.

The Mohammedan became at last a fixture. His possession of India was a question of eight centuries. But he won in the end, and in the valley of the Ganges he reared the celebrated Mogul empire. He has been the Englishman's bitterest foe. The Hindoo has been ready to yield. He has caught the breath of the European civilization. He is an adaptable creature. Yesterday the Brahmin declared he would never enter a tramway, and allow a sweeper to touch his robe. But to-day he walks in composedly, and takes the first seat he can find. Ask him why, and he says, "I have made a discovery. These very tramways are a part of our system. I have read of them in our ancient Vedas. They are prophesied there, as plainly as the nose on your face."

Now this is the habit of the two races. The Mohammedan is fixed. He is hard to reach. He makes no promises. The Hindoo is pliable, and is ready for change. Knowing this difference in the races, I was quite well prepared for Hindoo adaptations of English methods. But I was ill prepared for a formal, thorough, and elaborate grafting of English ideas on a Mohammedan stem.

I had heard of the celebrated Mohammedan Anglo-Oriental College in Aliguhr, and was anxious to see it. By cutting off an hour here and another there, and doing an improper amount of early rising and night riding, I gained a half day, and spent it here.

This institution is an educational phenomenon. It is more—it marks a new epoch in the history of Islam. It is a vast educational establishment, which has grown out of the brain of one man, Syed Ahmed Bahadur, a learned and venerable Mohammedan. Much care was taken by him in paving the way for the institution. In 1870 a committee was formed for the diffusion and advancement of learning among Mohammedans of India. They offered three prizes for the best essays on the subject, and the result was to adopt a proposal for a college. Its aim was declared to be the popularization of the study of European science and literature among the Mohammedans in general and among the higher classes of the Mohammedans in particular, and to form a class.

Ahmed Khan, as I learned on the spot, differs essentially from some of his co-religionists. He regards Mohammed as only a man, with many infirmities and no superhuman inspiration. Perhaps, if closely questioned, he would make still further admissions. But when a Mohammedan once concedes that Mohammed was fallible, he removes the Koran

from its lofty place of indisputable truth, and reduces it to a purely human book. He may have nothing to say as to the Koran, but his view of the writer must disturb also the sacred character of his writings.

This learned and highly esteemed gentleman conceived the idea that Mohammedanism, in its present exclusive shape, has no future. It is fated, and deserves to die, if it will not undergo modern renewals. There is enough in it to save it, but the English ideas must be taken on board. By this process only can the vessel float. Now, to bring this about, a central and strong educational institution with a broad and thorough curriculum, must be founded. There must be no scanty giving. Mohammedans, and such only as have caught the breath of the nineteenth century, must be invited to contribute to its endowment. In addition to giving largely of his own means, Syed Ahmed went south to the nizam's dominions, and secured large gifts from the nizam and his prime minister, the celebrated Salar Jung. He also took upon himself the great burden of securing means from English gentlemen. He made no secret of his purpose. He wanted a great college established for the education of Mohammedan young men the world over. He traveled by night and day. He threw his entire time and wonderful energy into the undertaking. The result is the present large college in Aliguhr.

Syed Ahmed wished no honors for himself. But he did desire to see his work a success. I had the pleasure of an introduction to him, in his own rooms, in the main college building. Here he lives, in the midst of the buildings which his own energy has reared, and in constant sight of the many young men who have come from every quarter of the Mohammedan world to secure an education. He is advanced in age. His face is a picture of benignity and manly vigor at seventy five. His beard is long and snowy white. In manner he is gentle and courteous. In speech he is deliberate, if not slow, and is the finest specimen of the Mohammedan gentleman I have ever seen. He has been prompted by a desire to elevate his co-religionists of the Mohammedan faith, and, now that the work is well begun, he is spending his last years in handsome rooms in the main building, and holds merely a nominal official position, as honorary secretary and member of the managing committee.

The real basis of existence of the college is the Mohammedan disinclination to attend the government institutions. The Hindoos have not been opposed to the national schools, and are to be found in all the classes. They had been conquered by the Mohammedans, and were as willing to study English and such sciences as the English conquerors of the Mohammedans had brought with them, as to study Arabic or Persian. "The change of rulers made no difference to them, and they took to English as their ancestors had taken to Persian.

"But the Mussulman, who, notwithstanding the downfall of his race, had still sparks of ancestral pride in his bosom, looked with contempt upon the literature of a foreign race, opposed all reform, and ignorance contributed to encourage him in his opposition. He obstinately declined either to learn the English language or modern sciences, still looked up with veneration to those mysterious volumes which con-

tained the learning of his forefathers, and reconciled himself to his position by a firm belief in predestination. The result was a great political evil. A large number of Hindoos had acquired a knowledge of the English language and thus kept pace with the times, and some of them rose to the highest offices under the English government.

"The Mohammedans, on the contrary, remained stagnant, remembered with pain and sorrow the past power and prestige of their race, and still continued to worship the learning contained in Arabic and Persian literature. The surrounding circumstances grew too powerful for them, and they gradually sank into ignorance, poverty, and degradation." (*The Pioneer*, Allahabad, Sept. 4, 1875.) Here lies the whole secret of the distancing of the Mohammedan in India by the conquered Hindoo. It is the old story of the final triumph of the conquered.

In 1877 the foundation stone of the Alighur College was laid by Lord Lytton, Governor General of India. In 1878 all the classes were in full operation. The college was affiliated to the Calcutta University up to the First Arts standard in the same year; to the B. A. standard in 1881; and in Law, in 1883. In addition to buildings, extensive grounds, scientific apparatus, and other general needs, it was supposed that five hundred thousand pounds would be needed to furnish an income for providing for the teaching staff and other current expenses. This sum, I imagine, has been either fully raised, or so nearly reached that no anxiety is felt for the future of the institution.

There are two departments to the college—preparatory and scientific. There are eighty scholarships, tenable for one year and yet open for re-competition. They range from fifty to one hundred twenty dollars in value. There are separate studies for the two Mohammedan sects—the Sunnis and the Shiah. There are also thirty fellowships, which are conferred on the best of the honor men. The annual value of the fellowship is two hundred forty dollars, and it is tenable for seven years. There are singular adaptations to the native mind, such as the cooking and eating regulations of caste, and the muezzins, or Friday calls to prayer. The Shiah dons will go to mosque three times a day; while the Sunni dons will not eat at the feet of an imam, or preacher, who knows the Koran by heart. But these requirements are only for Mohammedan students. There are Hindoos and a few Christians in attendance, and for them all the honors and emoluments of the college are as fully open as for the Mohammedans.

The management of the college rests on four committees—on instruction in languages and secular learning, on Sunni theology, on Shiah theology, and the managing committee on which rests the internal management of the college and boarding-house. On April 1, 1884, there were two hundred seventy-two students in attendance. Of these, two hundred one were Mohammedans, seventy Hindoos, and one native Christian. Nearly all of the students are boarders. The examinations are semi-annual. Five students have already gone to England, and are in the two great universities, having finished the full course at Alighur.

There are twenty-four persons in the board of instruction. The principal, Mr. Theodore Beck, is an Oxonian. He was very courteous to me, and accompanied me over the grounds, and into the students' rooms and the boarding halls, and explained to me all the details of the institution. The salaries range from ten rupees, or four dollars, to six hundred fifty, per month. Principal Beck receives the latter amount, beside ample apartments. The income for 1883, from all sources, was nearly twenty thousand dollars. The annual

cost of a student in the college classes, including board, is about two hundred fifty dollars per year. For all other classes the cost is far below this figure. There is a small sum which each boarder must pay for medical treatment, ranging from two dollars and a half to nine dollars, according to the grade of class.

The students come from every Mohammedan quarter. The valley of the Ganges furnishes the largest proportion, for here are the descendants of the Mohammedan populations which were built up by the Mogul emperors, on their invasion of the country. Then many students come from Southern India, the nizam's dominions. But the territory lying between India and Europe is not without its representative. One student gives his residence as Constantinople. I saw a number of the students, and had the opportunity of conversing with them. An air of cheerfulness pervades the college. Chance led me to make inquiries of one, who was crossing the compound, as to where the principal's house was. He was very courteous, conducted me to the principal, and on the way explained, from a student's point of view, many things which I could not hope to learn from any officer. After leaving me at the door of the principal, that gentleman told me that my guide was the son of a Mohammedan prince, and a most worthy and industrious student. There was nothing in his manner or costume to indicate his princely belongings. But that is precisely what might be expected. The search for knowledge is a republican process, in whatever land one sees it.

I was greatly pleased with one feature of the Alighur College. There is no concealment of the financial or other matters relating to its condition. The "Report of the Progress of Education in the Mohammedan Anglo-Oriental College at Alighur" is the finest specimen of a financial statement, combined with minute data concerning the courses of study, which I have seen anywhere. It would be an excellent model for some of our American treasurers and other officers of colleges and universities, who imagine that the public have nothing to do with the details of financial management. Let the public know where money for a school comes from, and whither it goes, and they will entrust it with more. One of the curses of educational management in the United States has been its financial concealments.

I imagine that the general tendency of such schools as the Alighur College is elevating in a moral sense, but far removed from Christian influences.

The principal, from my conversation with him, led me to infer that Biblical teaching has no place whatever. There is but one Christian in the whole body of students. It is a question whether this is the result or the cause of the absence of the Bible. But the Mohammedans and Hindoos can, alike, see that the college itself is a concession to Christian ideas. It was organized on purpose to introduce modern Europe into the heart of old and dead Asia. The newest ideas from the Tyndall and Huxley laboratory will, of course, come to the Alighur College, but there will be many who will ask, Where have these ideas come from? What was the creative force which first put them into the English brain?

It is a question of only a few years when all the great schools, of every name, in India, will have a Christian basis. The pressure from the missionary institutions is already very strong, and is increasing constantly. The time is sure to come when from the India to which England has borne her gospel and constitution, will come strong arguments for the Christian faith, to counteract some of the false teaching from the banks of the Thames and the Isis.

## BUTTERFLIES AND MOTHS.

BY MARY TREAT.

### III.

#### SCALE WINGED INSECTS.

Butterflies and moths are arranged in an order called *Lepidoptera*. Their wings are covered with a seeming dust, which adheres to the fingers when handled, but under a magnifying glass it is resolved into feathery scales. The name comes from the Greek word *Lepis*, a scale, hence *Lepidoptera*, or scale-winged insects.

The larvæ of butterflies and moths are usually called caterpillars, and they are mainly vegetable feeders; very few aside from the silk-worm are of direct service to mankind. But who among us would be willing to have them banished from the earth? What would a summer be without its brilliant butterflies?

As if to compensate for the destructive work done by hosts of these creatures, many of them are arrayed in rich and varied colors vying with our most exquisite flowers in beautiful tints, with the added charm of form and motion. And it is a notable fact that the larvæ of our most gorgeous butterflies live mainly on worthless plants, and even those that attack our food plants, like the "parsley worm," do so little damage that it is often a welcome sight to find them feeding in our gardens.

A little knowledge of the habits of the insect world will enable those who admire the beautiful in nature, to discriminate and judiciously arrange their flower gardens with a view to attract and rear these charming creatures around their homes.

One of our most lovely butterflies is the Painted Lady (*Pyrameis cardui*), and it can be raised among our ornamental plants where for two or three months it will flit from flower to flower, delighting the beholder with its grace and exquisite colors.

The larva of this butterfly most frequently feeds on the leaves of the thistle—some species of *Cirsium* or *Carduus*—but it is not very particular; so if the parent butterfly does not find a thistle near by, she will select some closely allied plant on which to deposit her eggs, her instinct telling her that her progeny will thrive on one as well as the other.

It is a great mystery how the butterfly can select her plant with the unerring certainty of the most learned botanist; but we know that she does, so we can accommodate our Painted Lady with the *Centaurea*, or dusty miller as it is sometimes called. This plant is first cousin to the thistle, and has white woolly leaves, and we raise it for its ornamental effect as well as for our Lady who places her eggs singly on the ends of the branches. When hatched the little caterpillar folds a leaf over itself and fastens it with a silk thread, and here it lives during its larval state. As it increases in size, it also increases the size of its dwelling by folding over more leaves and securing them firmly with threads of its own manufacturing.

This past summer over twenty of these caterpillars had their homes on a clump of woolly *Centaurea* in our flower border, and yet they did not disfigure the plant, but rather added to its effect by keeping it from running up into flower stalks, thus securing the larger size and spread of the lower leaves.

In order to see the young ladies I was obliged to break into their dwellings, where I would find them curled up

feigning death. They lived singly, each in her own house, and were not at all handsome like their parents; and as if aware of the fact they kept constantly concealed during their growing state. Small clusters of bristling, dark brown hairs or spines nearly covered their bodies, which gave them the appearance of being on the defensive, or advertising "hands off," which I was willing to heed.

When they became full-grown they left their homes, and several went to a neighboring mass of feverfew and hung themselves to the leaves and branches where they were soon transformed into beautiful, glittering gold-colored chrysalids. This was early in August, and in a few days the bonds were broken, and the charming Painted Ladies came forth. From that time on until far into October they helped to make the garden gay and brilliant with their indescribable beauty.

The Red Admiral (*Pyrameis atalanta*) was also a frequent-er of the garden. The larvæ of this butterfly always feeds upon the nettle. The caterpillars resemble those of the Painted Lady, and have similar habits, living singly in concealment, but they do not leave their homes to undergo transformation, but suspend their chrysalids from the roofs of their dwellings.

Not by any stretch of the imagination will the nettle become an ornamental plant, but I manage to have a clump growing in some out-of-the-way place—not the dreadful stinging species, *Urtica dioica*, but the slender rather graceful *U. gracilis*, which has very few stings; as it is a perennial it will stay for years with little or no care, and the Admiral will be sure to find it. The ground color of the wings of this butterfly are a rich velvety black, with a broad scarlet band on the upper wings, and also along the edge of the lower pair, and several pure white spots ornament the tips of the upper pair. The under surface of the lower wings is marvelously beautiful. As it settles on a flower and raises its wings over its back, it exhibits all the colors of the rainbow, arranged in a most complicated and artistic manner. It is about the size of the Lady, measuring from two and a half to three inches across the wings.

*Danaus archippus* is another splendid creature that can be easily reared in our gardens. It has no common name, but it well deserves some pet name, which lovers of the beautiful who have no technical knowledge of entomology may easily remember. The larvæ of this butterfly feeds upon the milk-weeds (*Asclepias*), and as there are some fifteen or twenty species growing in the northern states there is scarcely a locality where one or more kinds are not to be found, so our Archippus finding food everywhere is one of the most common and widely diffused butterflies in America. It is found in Upper Canada. Professor Agassiz tells us it extends into South America where it is common throughout the region of the Lower Amazon.

Its wings are a bright orange-red with veinings of black, and two irregular rows of white spots along the edges of both pairs. It is among our largest butterflies, expanding from four and a half to five inches. Although it is common, yet it is so beautiful in all of its stages that it is well worth our while to give it a place in our gardens, which can be easily accomplished by growing a bunch of the *Asclepias tuberosa*. This plant grows from one to two feet in height,



and can be trained in a compact bushy mass. It has large clusters of bright orange-red flowers which last all summer, making it more ornamental than many of the plants that we obtain from the florists. Unlike the other milkweeds it has no milky juice, and its leaves are slender, and of a vivid green color, and are crowded thickly along the stems. Before the flowers appear no one unacquainted with the plant would think of classing it with the milkweeds. But our Archippus butterfly, wiser in such things than mortals, knows at once without comparing the flowers that this is one of the food plants for her children, and proceeds to deposit her eggs on the leaves, which soon hatch into smooth caterpillars that never try to conceal themselves.

To those who have studied insect life, these children are not at all repulsive. They are dressed in a showy garb, the ground color being a greenish white, transversely banded with black, yellow, and white, and the chrysalis is one of the most beautiful objects in nature. No jewel could be more resplendent. It is of a pale, clear green color, dotted with bright shining golden points, and a semicircle of gold bordered with a row of small black dots.

Some of the lovely *Papilios* can also be easily raised in our gardens. The lower wings of these butterflies are prolonged and terminate in a tail.

*Papilio turnus* is one of the most showy of the genus. Its wings are yellow and black, diversified with spots of rufous and blue, the tails are black bordered with yellow. It measures about four inches across the wings. Its young feed on the leaves of the cherry and plum. They prefer the wild to the cultivated, and seldom feed on the finer varieties if the other is near at hand.

*P. asterias* is another species very well-known to every gardener in its larva state as the "parsley worm." It feeds on various umbelliferous plants,—carrots, parsnips, celery, caraway; in fact, indiscriminately on almost any plant in the order. I am always glad to see the gaily dressed larvæ taking their meals on the leaves of carrots and parsnips, for they are not often numerous enough to do any particular harm. When full-grown the worm is a delicate green color, with transverse bands of yellow and black, and it is provided with a pair of retractile orange-colored horns, which it thrusts out upon the slightest provocation, and with each thrust it ejects a strong disagreeable fluid, the odor of which is perceptible at some distance around.

The chrysalids of all the *Papilios* are grayish, or brownish-red, without metallic spots, and are fastened by the tail and also suspended by a thread across the back. The *asterias* butterfly measures about the same as *P. turnus*, and fresh specimens are very handsome. The wings are black or a very dark brown, with several triangular yellow spots, diversified with blue between the yellow.

Several other charming butterflies may be raised and kept in our gardens, by learning their habits and taking a little pains to accommodate them with their food plants.

The butterflies are day fliers and mostly harmless. The plain-looking, nearly white, cabbage butterflies being the main exception. But this cannot be said of the night-flying moths. In this division of the order there are untold numbers ravaging our flowers, fruits, and vegetables, and even working their way into woody shrubs and solid tree trunks.

The wings of moths are never elevated over the back, like those of butterflies, but lie flat on the body, or along the sides, sloping like the roof of a house.

The immense number of moths found in our country fairly bewilders us; from the tiniest species scarcely visible to the eye, are gradations all the way to magnificent specimens measuring from six to seven inches across the wings, rival-

ing in beauty our most gorgeous butterflies. It is a pleasure to be able to say that these splendid creatures are harmless. It is the smaller grayish looking moths that work mischief, which skulk from the light, hiding under rubbish or any convenient place they can find, as if aware that their deeds were evil.

One of the most beautiful of all our moths is the Luna. Its large body is pure white, while its wings are a pale pea-green, with a bright eye-like spot on each. The spots are transparent in the center, and encircled with rings of white, red, yellow, and black. A broad reddish band extends along the upper edge of the fore-wings, and each of the hind-wings is prolonged into a tail nearly two inches in length. The broadly feathered antennæ are yellow.

With expanded wings it measures from five to six inches, and is justly termed "Fair Empress of the Night." The larva of this fine moth is of a pale bluish-green color, and has a yellow stripe on each side of the body, and several pearly protuberances tinged with red are scattered over the back and sides. It feeds on the leaves of the walnut, hickory, and persimmon, and when full-grown is about three inches in length. It spins its cocoon of white silk between two or three leaves, which it has drawn together with silken threads, and in the autumn it is not a difficult matter to find one or more of these cocoons under the trees where the larvæ fed. The moth will come out the following May or June, and the beautiful sight will well repay the little time spent in the search.

At the same time in similar places, and also under oaks, it is not uncommon to find the cocoon of the Polyphemus moth; this is also enclosed in leaves and resembles that of the Luna. If we continue our search we may be rewarded with the great oval cocoon of the Cecropia, which is attached to the side of a stem with no attempt at concealment. In color it is dark brown, and about the size of a hen's egg. Both of these moths will leave their cocoons late in May or early June. They are magnificent creatures; their rich coloring is almost impossible to describe, but fortunately they are quite common, much more so in southern New Jersey than the Luna. I have seen specimens that measured nearly seven inches across the wings.

The Regal moth (*Ceratothrips regalis*) is one of our most rare moths. Its prevailing color is orange-red, its wings are striped with red and olive interspersed with irregular yellow spots. The larva of this splendid moth is called the royal-horned caterpillar, and to those unacquainted with it, it appears formidable indeed. The first specimen I ever saw was before I knew anything of entomology, and I was greatly alarmed at the "frightful creature." It was feeding on a hickory tree which stood on the lawn, only a few rods from the house. I called my brother to cut the limb on which it was feeding, and we took it to the middle of the road, found a large stone and let it fall on this inoffensive royal caterpillar. Not long after, we obtained a copy of "Harris' Insects," and to our regret learned too late what we had done.

For years I never saw another specimen; not until I came to southern New Jersey where the larva is more common and usually feeds on the persimmon. One year I raised a family of ten, to full-grown caterpillars. When first hatched they are black, but with each molt they come out with a brighter and more gaily-colored dress. The last dress they appear in before changing to the chrysalis is very fine, the ground color being a light green interspersed with delicate sky-blue. The base of the long curved horns, head, and feet are of a deep orange color, and the short horns are black. Two of my specimens attained the length of a little more

than six inches. The longest horns are about an inch in length and curve backward from the head. When these creatures take a seemingly menacing attitude, with their formidable looking horns, they are well calculated to startle one who is ignorant of their habits, but they are perfectly harmless, and to a lover of natural history they are beautiful and interesting objects. They burrow into the ground to become chrysalids, where they hibernate during the winter.

What a wonderful provision is made for insects! Fully one-half of the year the great majority go to sleep and live without food. Trees and shrubs are stripped of their foliage, and all succulent plants wither and die,—nothing is left for their sustenance; and they are so framed that they can withstand the most intense cold, whether in the egg, or larva, or chrysalis, or in the perfect state.

Many of the moths hibernate in the larva as well as in the chrysalis form, and some of the butterflies live through the winter in the winged state; the Painted Lady, the Red Admiral, and the Danais mentioned in this article, being among the number.

We may often see in winter a twig on an apple-tree encircled with a dense mass of eggs, some two or three hundred glued together and coated over with a kind of varnish. Only a skilled workman could do so neat a job, and this ingenious artisan is a moth—*Clisocampa Americana*. Among the great throng of moths very few make provision for their eggs to remain through the winter. The large majority deposit them directly on the leaves or young fruit, where they hatch in a few days. But this creature has departed from the usual custom of the great order to which she belongs; and we wonder how she learned to fasten her eggs around a twig instead of placing them on a leaf. Did she know that the leaf would be at the mercy of the winds and land, no moth knoweth whither, and her children perish for lack of food? However this may be, we only know that the eggs will hatch when the young apple leaves appear, and that they will produce the well known tent-caterpillar. Although we may admire the ingenuity of the mother and her children who live in silken tents and go out in regular order to take their meals, yet we cannot afford to let them live on our trees; the quickest and easiest way to dispose of them is to destroy the eggs while the trees are yet bare of leaves.

On other trees in winter we may find here and there cocoons or bags hanging on the twigs. On examination they prove to be the cases of the bag-worm, *Thyridopteryx ephe-*

*maeraformis*. It is well that the poor creature is not aware of the name that has been bestowed upon it. The parent is a moth, whose life history is queer enough. She is another exception among the moths who prepare their eggs to remain through the winter. On cutting the bag open we find the soft yellow eggs in the old chrysalis shell surrounded with a mass of brownish down. The eggs hatch in May, and the little worms come out of the case and drop down, each suspended by a long thread where they sway about in the wind until they finally alight on various parts of the tree. The first thing they do after alighting is to spin each for himself a little silk bag which it covers with tiny bits of anything it can find.

Now they are fairly equipped for their life work. They seem to prefer evergreens for a regular diet, but they are well-nigh omnivorous and will eat the foliage of any tree on which they happen to find themselves. As they grow they increase the size of their bags around the head, which makes them cone-shaped, and here they always live, carrying them on their backs, with only their heads and first legs sticking out; while feeding they never wander far. When they are full-grown, and want nothing more to eat, they become restless and begin to travel, and often wander quite a long distance from where they fed. The reason of this is obvious; if they all remained in one place there would not be food enough for the next generation.

At last the worm has found a place that suits, and has ceased roving and is tying its bag with a strong cord to a twig, never to a leaf-stalk, for the leaf would fall. After the bag is securely fastened, the worm rests from its labors a short time and then throws off its larval skin and becomes a chrysalis. It remains in this state for about three weeks, and then the moth breaks through the shell and we find the strangest looking creature imaginable. Can this be the female moth with neither wings nor legs? The creature is simply a bag of eggs, in a worse state than the first! When a worm she could travel about, but now she is doomed to a prison life of obscurity—never leaving her home. The male, her pretty partner, has wings and legs and can flit around and go where he pleases, while she has nothing to do but prepare for a coming generation. She lays her eggs in the upper part of her chrysalis case, and takes the soft downy material from her own body and wraps them in a warm covering, and then falls to the ground wasted and dead.

And here hangs her bag to-day, secure through all the winter storms, and, unless destroyed, the trees will suffer from the hundreds of worms that will hatch in May.

## JOHN ROACH.

BY THE REVEREND GEORGE E. REED, D. D.

John Roach, late proprietor of the Morgan Iron Works, of New York, and of the yet more celebrated ship-yards, of Chester, Pennsylvania, was born on Christmas day, 1813, in the village of Mitchelstown, County Cork, Ireland. Of his father little is known beyond the fact that at one time he was a merchant, comfortable in circumstances, fairly prosperous in business, but with a large family to support.

His mother was a woman of good intelligence, great industry, distinguished for judgment and good sense, and of the deeply devotional spirit so characteristic of her race. Of her Mr. Roach was accustomed to speak with warm admiration, and deepest reverence. From her he inherited, in large degree, the buoyancy of spirit, the indomitable will, the

tireless energy, the ready wit, the vivid imagination, and, above all, the strong practical common sense manifested at every step of his laborious and successful career.

The feature, however, of the mother's character most deeply impressed upon the mind of her boy was her religious fervor and sensibility. So strong, indeed, was her influence in this direction, that never in after years was he able to listen, save with greatest impatience, to the words or teachings of any one, no matter how eloquent or gifted, seeking in any way to disparage either the Holy Scriptures, or the ancient faith taught him from the lips of the woman he never ceased to revere.

When John was about fourteen years of age, misfortunes

began to thicken about the hitherto prosperous family. In an evil hour the father was induced to endorse the notes of several of his friends for considerable amounts. These notes Mr. Roach was obliged to pay. Soon after, the father died, broken in fortune, crushed in spirit, slain by the treachery of those to whom he had confided both honor and fortune—just as years later his son was to fall, stricken down by men who should have been his strongest supporters.

Forced by these misfortunes to shift for himself, young John determined to seek his fortune in the New World. Furnished by a relative residing in New York, with money sufficient to pay his passage to the city destined to be the scene of his future triumphs, at the age of sixteen he landed at the Battery, only to find that the uncle from whom he had hoped to receive shelter and assistance had, in the meantime, enlisted for the Florida wars, so that the poor young Irish lad found himself homeless and friendless.

In his extremity he at once sought in every direction for employment but without success. Finally, hearing that a cousin was living somewhere among the Jersey pines, he started out for the place of his abode, walking the entire way, a distance of forty-seven miles, in the hope that he might borrow a sum sufficient to enable him to return to the land for which he had become thoroughly homesick. Fortunately for his future career his relative proved to be as poor as himself. Nothing remained for him but to go to work. This he accordingly did, engaging for his board and one dollar per week, in a neighboring brick-yard. As at this rate more than a year would elapse before the requisite fifty dollars could be secured, he sought for work that would afford larger remuneration, hiring himself for a season as a common hod-carrier. While at this work the desire seized him to learn the trade of an iron-founder. To his deep disappointment he found that to do so would require the entire sum he had so laboriously saved.

In addition he had to encounter the opposition of the superintendent of the works, who for some reason had conceived for the young hod-carrier a deep dislike, chiefly because of the fact that he was an Irishman; and in those times the familiar phrase, "No Irish need apply", had a significance unknown in these later times.

Nothing daunted by the rough treatment of the superintendent, Mr. Roach sought out the proprietor, Mr. Allaire, noted at the time as the owner of the celebrated Allaire Iron Works, of New York, where, as we are told, Robert Fulton planned and constructed his first engine. Mr. Allaire heard his story, sent for his foreman, and asked him why he had refused to give the young man the privilege he desired. "Because he is too green and stupid to learn any thing", was the response. "Well," said Mr. Allaire, "a boy who in one summer can earn and save fifty dollars as a hod-carrier is neither too green nor too stupid for me. You put him to work."

Here Mr. Roach remained for several years, being discharged at last by his old enemy for the reason that he had in the meantime succeeded in winning the heart and hand of that irate official's sister. Drawing a part of the money due him, he went West, with the view of taking up land, and entering upon the life of a farmer. The venture was not successful. Mr. Allaire, who owed him at the time of his departure fully one thousand dollars, failed, leaving John Roach in a condition of hopeless embarrassment. Defeated in this project he returned again to New York, working his way the entire distance by holding a surveyor's chain. He then went to work at his old trade, making castings for machinery.

Not yet, however, did the sunshine of prosperity rest upon him. With a steadily increasing family to provide for, saving was slow work. Still, with undaunted will he worked and saved, and perhaps there was never in his life a prouder day than that on which with his hardly won earnings he was able to buy the humble home in which for many years he lived. That upon it was a heavy mortgage mattered little; it was nevertheless his own. The house secured, the next thing imperatively demanded was a stove. This at length he was able to purchase by making sash-weights overtime, trading weights and money for the stove, which he triumphantly wheeled home in a barrow borrowed for the purpose. That stove Mr. Roach never parted with; to the day of his death he kept it, saying that not for a thousand dollars would he permit it to leave his hands.

Finding himself after a while possessed of a few hundred dollars, Mr. Roach determined to set up in business for himself, taking as partners two of his fellow-workmen; one of the three (Mr. Roach) was to be the foreman, another, the pattern-maker, and the third, the outside, or office man. Four weeks passed and not a single order had come in. The outlook was certainly discouraging. At this juncture Mr. Roach went out to see if anywhere work could be secured, traveling over New York and Brooklyn, in the search. The result was an order for a single set of grate bars. Taking two of the old bars as patterns, one on each shoulder, Mr. Roach recrossed the ferry, happy in the success he had achieved, and little dreaming that in that same city, but a few years after, contracts for machinery involving millions would be matters of common occurrence.

Soon after this the firm dissolved, the partners fearing that the pluck and energy of their associate would wreck the concern. The immediate occasion of the dissolution was that he had, on his own face, after having refused the proffered endorsement of his old employer, purchased one hundred tons of iron. Objecting, Mr. Roach promptly bought them out, giving in payment his note, secured by a mortgage on his house. Both partners then entered his employ, one remaining with him up to the time of his death, and the other working for him for many years at Chester, Pennsylvania.

Pushing his business with characteristic ardor, prosperity crowned all his efforts until, by explosion and fire, he saw himself again stripped of nearly all he had in the world. B'ows like this were hard to bear, and yet without them, John Roach would never have become the man he did. He himself, when speaking of the trials of those early years, was wont to say: "Thank God for obstacles; without them I would never have succeeded."

In 1868 Mr. Roach's business had become so heavy that he bought the Morgan Iron Works, and from this time became known far and wide as one of the shrewdest and most successful manufacturers in America or in the world.

In 1872, having become interested in the project of creating a merchant marine service, American in origin and aim, to take the place of that lost during the war of the Rebellion, he was induced to purchase the great ship-yards at Chester, Pennsylvania, with the purpose of there proving that, under sufficient encouragement from the government, ships could be produced from American ore and timber equal to those under the flag of any nation of the globe.

To the plant already existing at Chester, he added heavily, building a rolling-mill, blast furnaces, and shops of every kind, until within his own yard, from ore and timber brought from American mines and forests, ships like the *City of Tokio* and the *City of Peking* of the Pacific steamship lines, equal in every respect to those built on the banks of



the Clyde, were produced with ease.

So extensive was his business during these busy and prosperous years that up to the time of his assignment, a year or more before his death, one hundred fourteen iron ships, many of them of great size and magnificence, had been successfully built and launched. Eventually the plant at Chester covered one hundred twenty acres; three thousand men were in his employ there and in New York; while for years the weekly pay-roll footed up not less than thirty thousand dollars.

Until the accession of the Garfield administration Mr. Roach, together with Colonel Thomas Scott of the Pennsylvania railroads had in contemplation a gigantic scheme of inter-continental communication by means of which the great trunk lines of the United States were to be brought into connection with a fleet of immense steamers, twenty in number, that the products of every state could find an easy way of reaching all the great distributing points of Europe, with no interruption, and with but a single change; while, with equal facility, emigrants shipped at Hamburg, Bremen, Havre, Liverpool, or London, could be transported by one corporation, without the present annoyances of delay and change, to the Black Hills, or Colorado, or to any other point within the limits of the United States.

For the furtherance of this scheme the government was to be asked to grant to the line a subsidy of three and one-half per cent on the paid-up capital of the company, equal to four hundred twenty thousand dollars per annum,—a *bagatelle* when compared with the gigantic sums paid by the English government to the various lines engaged in its great ocean-carrying trade. The establishment of this line was Mr. Roach's paramount ambition. President Grant was ardently in favor of it, but did not see during his administration a good opportunity to present it. The untimely death of Colonel Scott, for the time being put an end to the project. Under Garfield's administration it was, however, revived, and the great ship-builder always believed that had Mr. Garfield lived, his great hope would have been accomplished.

Soon after Mr. Garfield's death the government issued proposals for the construction of a number of vessels of various designs, for the naval service. For four of these,—the *Chicago*, *Atlanta*, *Boston*, and *Dolphin*, Mr. Roach secured the contracts, his bids being three hundred thousand dollars lower than the next on the list. Here the troubles that hastened his death began. Enemies who had long striven to compass his downfall, renewed their efforts for his destruction. Mr. Roach, however, continued his work for the construction of the vessels for which he had contracted. At length one, the now historic *Dolphin*, was finished, launched, and turned over to the government for trial. Upon the details of the long conflict that followed we need not dwell; it is familiar to all. Suffice it to say that in the end, the *Dolphin* was rejected. Mr. Roach was crushed, dying soon after the assignment which on July 19, 1885, he was forced to make, protesting to the end that he died a sacrifice to the selfish scheming of those to whom he had been politically opposed.

In appearance Mr. Roach was short in stature, strong in build, with a large head well set down between the shoulders. His face was broad and smooth, his hair sandy, his eyes bright and piercing, his hands large, knotty, and scarred by the hard work of his earlier years.

Scholastically an uneducated man, he was, nevertheless, at the time of his death as well versed in political economics as any man in the country. In mathematics he particularly excelled, his capacious memory enabling him to carry in his head masses of figures impossible to ordinary men. As a

writer he lacked the literary training necessary to success in that line. Most of the many pamphlets and speeches bearing his name were dictated to a stenographer, who in turn reproduced his sentences with rather more regard for orthography and grammar than was common with Mr. Roach.

In his domestic life he was particularly happy, with especial fondness for children. "Here comes grandpa" was ever the signal for a regular jubilee among the little ones, who crowded around him while from his capacious pockets he brought forth treasures of various kinds, or scattered in their midst a handful of change for the purpose of a general scramble. Corporal punishment he abhorred, never inflicting it upon any of his children. To the men in his employ he was ever kind and thoughtful, mindful of the privations to which for many years he himself had been subjected.

Mr. James Mooney, for many years in the office of Mr. Roach, informed the writer that his sympathy and kindness toward his men were absolutely without limit. For instance, finding one day in his shop a man by whose side he once had toiled as a journeyman, he asked the foreman what wages he was paying the man. "One dollar per day," was the response, "and that," he added, "is all he is worth." "Pay him two dollars from this time on," said Mr. Roach, "and moreover, see to it that he is furnished with a decent home, and plenty of fuel for the winter."

Workmen in trouble, bereavement, or times of sickness, came to him as a personal friend, and never were they sent away with their wants unsatisfied.

In his habits of living he was singularly temperate, never in his life using liquors or tobacco in any form, on the ground that to do so would be a bad example on the part of one employing so many men.

His own earnestness of life, however, never prevented his being kind and lenient in his treatment of men less fortunate than himself, never in his entire career discharging one of them for either drunkenness or dishonesty.

Of his efforts to reform some of his dissipated employees some affecting stories are told, and among them one to the following effect: Among his men was one whose dissipated habits were a constant source of annoyance to Mr. Roach, who tried repeatedly but in vain to bring about his reformation. Finally the man came himself and asked to be discharged saying that he was convinced of his own unworthiness. "If you go, it will be no discharge of mine, Henry," Mr. Roach said, "but you may sign this and resign if you like." Mr. Roach thereupon wrote out a form of resignation, which recited that "the undersigned had worked for Mr. Roach for many years, had always been well treated, and resigned because he was a worthless, drunken sot." "Copy that and sign it, Henry," he said. The young man copied it word for word, and was about to sign it, when Mr. Roach laid his hand on his arm and stopped him. Taking the paper from him he put it into an envelop, addressed to himself (John Roach) and duly stamped. "Carry that with you, Henry," said his employer, "and the next time you go to take a drink, sign this and mail it to me." He never received the letter.

Although not in the habit of attending church, owing to deficiency in hearing power, and at no time a member of any church, Mr. Roach was, nevertheless, a man of fervent religious spirit.

When he was at Mt. McGregor in 1885, an eminent minister who was staying at Saratoga came up the mountain to visit him, and after expressing sympathy for his misfortune asked Mr. Roach if he were a Christian. "Yes, sir," answered the ship-builder, "and I always have been, though I don't believe all the preachers tell me. I think there are

two things a man must accept in order to be happy after death. These are the holiness of God and the divine mission of Christ. I don't care a fig about what hell is like, or whether future punishment is eternal or only probatory. I am not interested in doctrinal discussions, and regard predestination as of no concern or value. I put my trust in the God whose handiwork these mountains reveal, whose beneficence is shown in the good gifts with which He has stored man's residence, the earth. I don't know how much or how little of the Old Testament I believe, but I am satisfied that if a man accepts Christ as his Savior and lives a just life, dealing honestly with all men and generously with the unfortunate, he will be blessed after death."

On the whole, perhaps, the finest tribute yet paid to his memory is that contained in the following touching and beautiful letter addressed to him but a few days before his death, and signed by the official representatives of all the great lines for which Mr. Roach had built ships, with the more prominent of the firms and corporations with which he had had business dealings. This letter is as follows:—

NEW YORK, December 27, 1886.

MR. JOHN ROACH,

DEAR SIR:—Your prolonged illness and

enforced absence from your usual haunts have deprived us of your cheering presence in our midst. We desire to express to you our heartfelt sympathy in your sufferings and misfortunes, and to assure you of our esteem and appreciation of your sterling and manly qualities, your indomitable perseverance against obstacles seemingly insurmountable, and greater than all these, your undoubted and unimpeachable integrity.

Those among us who have had contracts and dealings with you have a greater appreciation of your sterling qualities than others, and regret more your enforced retirement from business.

The steamships you have built, and which are a credit to their owners and the flag they fly, are mute witnesses to the thorough workmanship and knowledge of their builder, and we venture to prophesy that, in future generations, when the commercial marine will be fully recognized and appreciated, the name of John Roach will be handed down to posterity as the symbol of perseverance, honesty, and a well-spent life, having always in mind those good old maxims, "Do unto others as you would they should do unto you," and "What thy hand findeth to do, do it with thy might."

## THE BLACK HILLS OF DAKOTA.

BY COLEMAN E. BISHOP.

If you, sweet miss or dear madam, could make a layer cake the size of a crazy-quilt, composed of some fifty differing layers, and while it was yet warm and soft could thrust your fist through it from beneath, breaking and turning up on edge all the layers so that one could see on its top every thing that was in it, you would have a small model of the Black Hills of Dakota. The up-thrust fist would represent Harney's Peak of granite; all the open breaks down the center should be filled with granite, also. Your layers represent successive geological ages, the oldest at the bottom and, as upturned, nearest to the center; for jellies and spices it must contain gold, silver, tin, iron, copper, nickel, mica, lead, plumbago, antimony, and all the other minerals of which you ever heard or never heard; around the edges should exude petroleum, salt springs, mineral waters of different degrees of temperature and nearly all smells and tastes known to the pharmacopœia; there should be a fancy border made of gypsum, clays, sandstone, and marble in a hundred gorgeous colorings and variegations; clothe your shattered geological cake with a dense verdure of pines, so dark as to make them look black at a distance; let pulverized rock and mold partly fill up the wider chasms and convert them into beautiful mountain parks and grassy, flower-spangled lawns; let thousands of springs break, laughing, out of the crevices and caverns and tumble and roar their way out to the prairies in every direction—and there you have the Black Hills.

Look at a map of the United States and you will see that the south-west corner of Dakota and a piece of Wyoming are almost converted into an island by the Big Cheyenne River, which forks at the eastern extremity of Lawrence County, Dakota, its branches nearly meeting again on the west of the Hills, after completely encircling them. From the Big Cheyenne up to the center of this island is a rise of four thousand feet; there is one great "mesa," or plateau, that is seven thousand feet above the sea, while Harney's Peak towers to a height of eight thousand two hundred feet.

It is an island in another sense. Away for hundreds of miles in every direction—to the Great Lake, to the Rocky Mountains, to the north, to the south—rolls a sea of green prairie, in the midst of which, "wrapt in the solitude of its own originality," rise the somber, beautiful, wonderful Black Hills.

Here is the grandest geological cabinet on earth. There is not anywhere so complete a text-book. The volume of creation's chronology is here set open in successive pages, the most recent chapter outside, the oldest at the center. Before the battle of the Pyramids, Napoleon cried, "Soldiers, from the tops of these pyramids twenty centuries look down upon us!" A mere span of time, boastful conqueror. Standing on the edge of the Black Hills, we can say, "Fellow creatures, from these foot-hills a thousand centuries look up at us." Advancing inward a space to another chapter, it would be, "Here five thousand centuries look up at us." Half a mile farther, cross a cañon and say, "twenty thousand centuries." Then fifty thousand, a hundred thousand, a million centuries—until thus marching over buried æons, we shall stand at the granite center of this apocalypse-in-stone and say reverently, as we look up old Harney's deep-graven page, "It tires us to tell the centuries!"

The area clasped within the arms of the Cheyenne River constitutes the Black Hills Region. The uplift that marks the Black Hills geologically is much smaller, it being an irregular ellipse about eighty by one hundred miles in diameters, its longer axis lying in a direction about ten degrees west of northward. This ellipse is walled in by a remarkable ridge of sandstone from two hundred to one thousand feet high, that as sharply defines the Black Hills uplift as if it were a rampart constructed by military engineers to fortify this deposit of precious metals against "thieves that break through and steal." Standing on this rampart and looking outward, the green billows stretch away to the horizon. Facing about, you look down, perhaps five hundred feet, perpendicularly, on a treeless, smooth valley, across

which the citadel begins in walls of limestone, back of which are the black-wooded hills, rising in towers, pinnacles, deep moats, and perpendicular walls to the granite center—old Harney's frowning donjon-keep.

This valley is radiant with many colors. A luxuriant growth of grass carpets it; its sides are frescoed all shades of red, yellow, purple, drab, gray, and white; the dark pines as a background set them off; and over all a rarely blue sky. The prevailing color is red, and so the geologists call this the Red Valley. But the Indians—more poetical, I must think—called it the Race-Course. A grand track, indeed, three hundred miles around! What great Olympic sports might have been celebrated in this amphitheater, with all the old Titans throned amidst the granite crags and peaks and the multitude of lesser gods crowding the outside rampart! The Race-Course is the belt around the Hills where the soft gypsum was deposited, easy for the great waters to wash it away and to scoop out the annular valley. It is crossed and the rampart is deeply cleft at frequent intervals by the streams that spring from the fissured and chambered center—as if you, madam or miss, should cut your layer cake in many places from the center to the circumference. These notches through the rampart are the natural, necessary gate-ways to the inner hills, and ambitious towns are springing up there; Buffalo Gap, Hermosa, and Rapid City are such municipal gate-keepers. Dark, narrow, straight-walled, a thousand feet high in some places, these cañons have completely exposed the formations transversely; have cross-sectioned the ages; inserted foot-notes in this textbook of geology, so that no one has any excuse for not reading the "Autobiography of the Earth, profusely illustrated with colored cuts."

All the streams that radiate from the Hills are pure, wholesome, and beautiful, at first, but when they cross the Red Belt and pass out into the foot-hills they become impregnated with many foreign substances, and hard, corrupted, and impure—types of the course of too many human lives. When the streams reach the porous, thirsty soils they dive below the surface, reappear frequently, and then resume their underground route. Of forty principal creeks that rise in the Hills, only four are persistent surface streams to their junction with the Cheyenne.

As might be expected of an upheaval so unusual, the scenery combines the elements of grandeur, beauty, and strangeness. The singular outburst of medicated waters at Hot Springs on the south, where is a sanitarium for the treatment of rheumatic and blood diseases; the stranger volcanic rocks on the north; and the wild and jagged tangle of granite around Harney's Peak—variously called "The Needles," "The Fingers," and "The Sawteeth," are salient features. One volcanic rock worth particular mention and a long ride to see, is Mato Tepee, or the Bear Lodge. It is a natural obelisk, one thousand two hundred feet high, eight hundred feet in diameter at the base, gracefully tapering to three hundred seventy-five feet across at the top, and is composed of a mass of prismatic columns, unbroken their entire length—an unprecedented crystallization. Professor Newton says of Bear Lodge: "It is exceedingly difficult to account for this as the result of cooling by comparison with any known basaltic formation; and, indeed, in its shape and structure, appears not to have been repeated elsewhere by nature, but stands alone, unique and mysterious." The Giant's Causeway, Ireland, and the Palisades, on the Hudson, other well-known basaltic formations, are far inferior to Bear Lodge, as sights or studies. The scaling of this pillar has yet to be achieved by some daring and ingenious Yankee, who is ambitious to cast in the shade the feat by

which the British sailors ascended Pompey's Pillar and sat down on its top to dine and drink the queen's health—they, of course, being Englishmen. Some day there will probably be a famous Fourth-of-July celebration on top of Bear Lodge.

The natural parks interspersed through the Hills form a feature not less striking than the rugged mountains. These parks vary from a few acres to miles in area and bring the beautiful, the romantic, and the awe-inspiring into such contacts and contrasts that a day's ride through the Hills is a series of delightful surprises. Ragged, tree-crowned cliffs, and gloomy gorges hem them in; isolated piles of rocks, cleft and cavern, spring abruptly from smooth, grassy lawns. The combinations are so unusual and agreeable, in "such perfect taste," that one can hardly believe that no human design is in it. It is a realization on a grand scale of the landscape artist's dream.

If these Hills are old geologically, they are young historically. It is in keeping with their strange characteristics that until the close of the republic's first century they should have stood a *terra incognita* in the midst of this ransacked continent; but the waves of advancing civilization parted here and swept northward and southward across the continent, leaving the Black Hills unexplored, uninhabited, unknown. White men never penetrated them until 1874, and Indians always avoided them as the abode of the terrible Thunder God, whose voice reverberated through the gloomy defiles and whose spear fell on the crags with destructive frequency. Gold proved the open sesame to the dreaded Black Hills.

In 1874 the government sent General Custer with a detachment of troops and a corps of scientific explorers into the Hills. The scientists reported unfavorably as to the existence of paying gold deposits, on account of the adverse geological conditions. The soldiers and scouts reported favorably on the prospects on account of the yellow pocketful's that they "panned out." An unscientific and perverse generation rejected the geological demonstration and accepted the evidence of the gold, and there was immediately a rush of prospectors thither.

"The first low wash of waves,

Where yet shall roll a human sea,"

rippled into the Hills from the south and beached on Custer Park, as lovely and romantic a vale as human eye ever rested upon. Here the first placer gold was found, near by the first stockade was erected, and here General Custer used to "round up" the invaders for expulsion from the Hills. For this region belonged to the Indians, and the government sent troops to bring out the trespassers. That dashing, ill-fated officer, Custer, used to say to the miners, with a droll twinkle of his blue eyes, "Boys, I must obey orders and escort you out as often as you come in." They went submissively enough, but as soon as he turned them loose outside they started again for their gold washings. So the "boys" named the Park and first town of the Hills for General Custer. On July 4, 1875, there were thirty miners in that region; thirty six days later, August 10, Custer City was laid out, having then about a thousand population. Five days later, the complimented General again drove them all out of the country. After months of this expensive sport, the government bought the Hills of the Indians, and in 1875 opened them to settlement.

In the spring of '76 Custer City had reached a population of six thousand and a "hard camp" it was. Of it might well have been said or sung,—

"Every prospect pleases,  
And man alone is vile."



Then came the discovery of gold in Deadwood Gulch, fifty miles to the northward, and away went the camp in a wild stampede for "better diggings." In a few weeks the population of Custer City had declined to thirty, who enjoyed the "freedom of the city" of twelve hundred empty log-houses.

A similar "rise and fall off" was experienced by other camps. Sheridan, another soldier's namesake, in the very heart of the Hills, has now, perhaps, a half dozen families. It was once the seat of Pennington County, and of the first United States courts, and the first district land office. Business was done amidst queer surroundings: the rifle was always present, as Indians were all about and—"The bears came sniffing around the door when'er a child was born."

Indeed, the early settlers had stormy times among United States troops, bad Indians, wild animals, and white men nearly as bad and wild.

The monuments of these times are still fresh. Geographical names that perpetuate the history of wild deeds by Indians or white men and equally wild justice at the behest of "Judge Lynch"; the ruins of formidable and ingenious wooden stockades; deserted log-houses pierced with port-holes for the settler's rifles. As I write, from my window I can see a high ledge crowned by a tree that has borne grown some fruit of horse-thieves and road-agents—"Hangman's Hill" they call it; across the valley a group of graves whose pencil-marked head-boards still legibly tell that this is the burial ground of those massacred by the Indians. Only a few days ago a slain bruin that weighed eleven hundred pounds, was brought into the village.

It is strange to see a village calling itself a city and with all the improvements and civilizers of an eastern city—electric lights, street cars, aldermen, "jobbery," C. L. S. C., police courts, high schools, a daily paper, jail—the oldest inhabitant of which city boasts of having lived there ten years! "Old timers" they proudly call themselves.

Great changes have, indeed, taken place since the early rough times. With the civilizing agencies came new human elements and a moral and educational uplift. The eternal warfare between good and evil, order and lawlessness, has been taken up with the fearlessness and radicalism of western character. The proportion of church-goers is large; the temperance element, organized only within a twelve-month, has already become a powerful social and political agency; the first C. L. S. C. in the Hills, established this past winter, was limited in numbers only by the capacity of its places of meeting. Society is in a transition stage from the camp to the town, and queer juxtapositions result.

I have seen churches suspend their own regular services to accommodate a houseless denomination; a theater troupe abandon a performance to let a Presbyterian social occupy the only hall in the place, and the managers of the festival reciprocally suspend festivities to allow the Thespian manager to fulsomely announce the attractions of his show.

If there is still confusion in popular ideas of propriety and even in moral standards, it must be conceded that the elements of a sound and orderly civilization are here rounding into form with extraordinary speed and force. In moral as in material progress the people are as enterprising as unconventional.

All mineral lands of the government are free to its citizens, at the uniform price of two dollars and fifty cents an acre; and as long as a claimant holds it and does "assessment work" on it to the amount of one hundred dollars a year, even if he meanwhile take out all its valuable mineral, he need not buy it. He need only discover or uncover the mineral "in place," in its original lode or vein, and post

his notice of discovery and claim to as many tracts of about ten acres (300 x 1,500 feet) as he likes. Liberal as are these terms they are not complied with in the majority of cases, as to uncovering the vein or doing the assessment work. Thousands of claims are legally subject to re-location, but the original locators continue to hold them by virtue of the unwritten law of mining courtesy which makes "jumping" claims dishonorable. Beside, it is easier, cheaper, and more alluring to stake claims in the new districts constantly opening; there is too much valuable mineral land not yet prospected to make "claim jumping" attractive.

Prospectors are a peculiar guild; a strange compound of self seeking and open-handedness, of exclusiveness and hospitality, of cynicism and enthusiasm; the ambition of Vanderbilts and the ideas of Monte-Christo in the midst of lives of poverty and privation. The placer is the "poor man's bank," and to that he resorts to pan out in a few days' work the "grub stake" to supply his few wants while he continues his hopeful search for Golconda. He might easily win a competency by steady work in the placers, but he despises slow accumulation and wants a fortune or nothing.

I have seen a man reject indignantly an offer of twenty-five thousand dollars for a claim, the value of which was entirely problematical, and within a week sell an eighth interest in it for twenty-five dollars worth of larder supplies. They will sit hungry for years on their undeveloped rocks, refusing offers that would be the winnings of a life time in many vocations and, in a stress of necessity or burst of generosity, will give the most of it away. The pursuit, not the acquisition, of riches is what gives them value in more men's minds than the mining prospector's.

I have seen a man panning out gold at the edge of a field from which his boys were digging potatoes. I have seen a man digging tin ore from a ledge of rocks that formed the back wall of his corral, or barn-yard. And truth to tell, the potato-patch and cow-yard yielded far more than the pan or the tin lode; nay, the former supported the miners and their families. For never was there more inviting country for the prospector and miner. The valleys and parks contain a soil of unusual fertility, and the grazing supports stock the year around in good condition. "California Joe," Custer's famous scout, exclaimed when he compared the agricultural and mineral advantages of this country, "There is gold from the grass-roots down—more gold from the grass-roots up!"

Pathetic are some cases of the infatuation of miners with their claims—sometimes amounting to hallucinations. The blind faith of stock owners in undeveloped mines; the devices and devious ways of selling and capitalizing mines and constructing mills, each would make a chapter. One of the strangest studies in human phenomena to be seen in this country is a mining craze; one of those fevers over reports of new discoveries, that sometimes attack an entire community as a panic carries away an army. One morning at Custer, when I came down to breakfast, the landlord, clerk, and bar-tender of the hotel were missing, the hostler being in charge. The streets were deserted, the stores, offices, and bank closed. "Why, is this Sunday?—Where is everybody?"

"They're pretty near, out prospecting."

"Out prospecting!"

"That's what they are. Everybody that could rustle a cayuse [get a horse] left the camp before daylight."

"Where are they gone?"

"O, you're too late, Cap'n, for a show in that deal. It's in the Limestone range, fifteen miles from here. By this-

time they ain't enough prospect ground left there for a gopher's ranch. A couple of fellers came in last night and give it away to some of their old pardners, and they lit out before midnight; but the rest of the camp was watching 'em and trailed 'em to the new digging. You oughter seen the stampede before day. They'll all be back before night rich as Rothschild—in their minds—and the chances is not one of 'em will ever go out there again or even put up a dollar to pay for recordin' their claims. You're a tenderfoot and don't know what fools a lot of men are in such a race. Why, stranger, I've seen this same country staked over in mining crazes half a dozen times, for four different minerals in the same ground—gold, mica, tin, and silver—and no one has made a nickel out of any of them."

All these are features of an undeveloped mining country. The systematic working of the veins of the Black Hills has not yet begun. There is only one company that is doing business thoroughly and making dividends; and it has invested in its mines and mills perhaps two and a half millions of dollars. And this is the cost of operating mines in free-milling ores, the cheapest and best paying of all mines. The great lack, therefore, of the Black Hills is accessory capital to unlock these store-houses. There are Herculean tasks for capital, energy, and inventive genius to undertake here. Meanwhile the eager miner and speculator dreams and longs and chafes at the prejudice and stupidity of a world that will not wake to its own temporal salvation and fly to the El Dorado.

## UNRESTRICTED COMMERCE.

BY PROFESSOR W. G. SUMNER.

The issue between the protectionists and the free-traders is whether national wealth will be more rapidly increased if each man is left to employ his labor and capital according to his own notions, or if national industry is carried on under some restrictions and directions which are imposed upon it by legislation.\* It is also an essential feature of the protectionist device that the restrictions shall be imposed by the use of taxes on imports. Let us first understand what this device is.

It is plain that, in a modern free country, any interference with individual liberty, which is made must be applied secretly, or at such a distance that the victims of it may remain ignorant of it. Any interference which directly limited the occupation which an individual might pursue, or the trade which he might undertake, or the investment of his capital which he might select, or the wages which he might get, or the price which he might charge for his products, or the persons with whom he might trade, would be immediately resented, if it was direct and obvious so that it could be perceived. A protective tariff does all these things, but it does them in a way which is indirect, concealed, and not easily understood.

Inasmuch as each one would choose the occupation which he considered most profitable, the protective system alters the chances of profits in different industries from what they would be without interference. The citizen supposes that he is choosing freely the industry which is most profitable. He is not aware of the change in the conditions which has been operated. By setting taxes against the importation of commodities into the country, a new state of things is created inside the tax limits. The chances of profit, the market for labor, the prices of products, the comparative advantages of different industries are all changed. The state which is thus enclosed cannot actually be cut off from contact and intercourse with the rest of the world. Trade and commerce will still go on, but a certain obstruction and interference are present all the time, frustrating calculation and producing confusion. The obstruction may remain the same in form, but it is not the same in effect, for, as commerce and all the conditions of production are constantly changing, the effect of any given interference is changing all the time.

The people of any country which is under a protective tariff are, therefore, all the time unable to form judgments which are based on sound and certain facts in regard to the

conditions of trade and industry, and all their industry is carried on under interferences whose effect cannot be calculated. Intelligence, foresight, sagacity, and business skill are defeated. The moral education of sound business methods is lost, and the people are miseducated in all their social faiths and industrial methods.

Of course, if we are to have a protective system, the most serious question of all is: Of what kind is it to be? What restrictions are to be drawn? What interferences are to be made? Who is to take upon him the task of defining the lines for development of the industry of fifty millions?

The answers to these questions which have been made in the history of any country are such as to inspire anything but confidence in the system. The statesmen and legislators have never acted with any expenditure of knowledge or foresight. They have acted under two or three very gross but very stubborn fallacies, which were formerly held to cover a wide group of laws, but have now been abandoned as to all but these protective taxes on imports. They have never had any measure for the degree of their interference, and never any verification of the experiment on which they had entered. They have acted under the pressure of private greed and selfishness, brought to bear on them to give form and direction to the interference which they were about to exert. For nothing can be more plain than that, if the legislator is willing to interfere at all, he will be affecting in the most material manner, by every step that he takes, whatever it may be, the interests of various industrial groups. Moreover, he cannot possibly have knowledge of all the intricate and complicated factors of industrial success. It would be strange if he had it for one industry. It is utterly impossible that he can have it for hundreds of industries. He is, therefore, at the mercy of those who urge him by arguments whose force he cannot test or verify at all. Yet he has taken in hand the prosperity of the whole nation. No other result could be expected than the one which is reached in the United States at the present time, that the tariff, to those who know the facts of its operation, is a constant cause of waste and loss to the national wealth on an immense scale, in order to offer the opportunity for a few closely organized monopolies to win great gains.

In some vague way people generally believe that the tariff protects our people against foreigners. This notion is entirely without foundation. The tariff simply acts on the relations of Americans to each other. If there were no tariff, each American would command, in exchange for his prod-

\*Professor Sumner's discussion of the principles underlying the doctrine of Free-Trade will be followed in our July issue by a presentation of the principles of Protective Tariff.

ucts, the best that the world affords, in the way of supply for his needs, at the best rate of exchange that existing circumstances of trade and commerce will allow. The tariff cuts him off from this. It cuts across these lines of exchange and distorts the terms of them. It puts the American, when he wants any of the protected articles, in an artificial position, different from that which the arts and commerce of to-day would offer him. Then the American who produces what the first man wants, finding him in this artificial position, is able to make terms with him before supplying his wants. This is the object of the device, and this is the way it works. It interferes to put the American consumer in an artificial position, cut off from his best chances in the world of to-day, in order that the American producer of the protected article may have an advantage over him.

It is no wonder that this device is not popularly understood. It is intricate, and its effects are remote and indirect, just as they are intended to be. It puts business competition on a level with crime, as a thing to be repressed by law. It is impossible to understand its effects unless we compare what would be in a free market with what is in a protected market, but when the tariff wall is set up, and the world's market is closed out, then is when the protective system just begins to act, and its action is all exhausted on the insiders who are shut in to deal with each other. In its form, the tariff law is a tax law, but it does not propose to produce revenue. It is laid, not to be collected by the government for the treasury, but by the protected American from the unprotected American. By true historical descent it comes down from the days when mediæval kings forbade people to do things in order that they might extort money from them for abrogating or suspending the prohibition. It is the present form by which that device has been fitted to the forms of democratic government and the struggle of interests in modern industrial society.

The best calculation which has been made shows that every nineteen persons in our community, under the tariff system, pay taxes to the twentieth, that is, that one in twenty at most is included in the operation of the system.

The free-traders, now, attack this system on the ground that it is unjust to make one citizen pay taxes to another, or to tax one man to give trade profits to another. They do not object to import duties or to any other kind of indirect taxes as a means of obtaining revenue. The question whether to get revenue by direct or indirect taxes is a question of expediency under the head of taxation. Much might be said on both sides of it. There would be no hardship in any decision about it, except such as is inherent in all taxation. It is when the legislature uses the power to tax, not in order to get revenue for the state, but to act upon the relations of the citizens, so as to make some of them pay taxes to others, that the opposition of the free-traders begins.

There is such a thing as "British free-trade," properly so-called. It is the device which was proposed by Adam Smith and is now employed in England. It combines revenue from imports with the exclusion of protection. It consists in levying excises on internal taxes on home productions to equal and offset import duties when the latter would otherwise act protectively. All the tax-payer pays then goes into the public treasury, whether he uses the imported or domestic article. Where this is called "free-trade," the term, of course, has a special and technical meaning. Free-traders, however, hold to the creed or doctrine of economic liberty, believing that freedom of labor, capital, exchange, and commerce, in the widest degree consistent with social

limitations, is just as certain to be favorable to industry as freedom of speech, press, worship, and travel have been favorable to other interests of mankind.

A protective system must have a certain area over which to act and must include a group of population of a certain size. As time goes on, and improvements are made, the group over which protection is applied needs to be larger. Two or three centuries ago the system was applied to towns and counties of a few thousand inhabitants. The only two nations which can apply it with vigor to-day, without committing suicide by it, are Russia and the United States. The United States to-day, with an immense outlying territory of fertile land, and a rapidly increasing population, has conditions of expending energy which enable it to bear up against waste and loss which no old country could stand at all. Our new states are in the position of colonies to the old states. Our tariff system surrounds them and us. We hold them under exactly the colonial system which Great Britain tried to impose upon the colonies, and against which they revolted a century ago. We force them to trade with us under restrictions. We shut them out from the rest of the world by federal, *i. e.*, imperial laws. The arguments made to justify it are all the echo of the old arguments for taxing the American colonies. Their success is a proof of the power over the human mind, of sentiment against reason and fact.

If the Union had been broken up in 1861, and if New England had become a nation, could New England have established a protective tariff around herself? If Pennsylvania were an independent nation could she put a tariff on herself to develop her coal and iron? Evidently she must have a tariff on and around the consumers of her coal and iron, and the bigger the area of such consumers which can be included, the better for her. If the Union had broken up, New England and Pennsylvania would have had a reciprocity treaty of the freest possible terms.

The Southerners also, seem now disposed to take the position that they, or their fathers, were wrong when they used to point out so clearly, and denounce so vigorously, the wrong of a protective tariff. The only wrong was that, being plundered by the tariff, they had no chance to plunder back again. Some of them now appear to think that, if they have industries to be protected, then, although they still suffer as before, they can enter into the scramble and try to get something back, and then the system ceases to be objectionable. They, therefore, furnish a new illustration that men are always controlled by their interests and passions.

How does the device affect the national wealth? It is affirmed very often, and, in regard to many industries, it is undoubtedly true, that there are no great gains, and that the protected interests are not especially profitable. If that is so, then the loss inflicted on the victims of protection is not offset by gain to anybody. If the protected do gain, then they have won whatever they have won, not by the contribution which they have made to the work of the world, but by the taxes which the law has enabled them to collect from consumers—their neighbors and fellow-citizens. For it is they who say that their industry would not pay if it was not protected; hence any gains they make in it must be due to the tax, not to the industry. The reason why an industry cannot pay must be because, under the conditions existing in the place where it is carried on, some other industry will pay better remuneration to all the labor and capital which can be employed there, and this must be so on account of facts of soil, climate, situations, national character, commercial advantages, etc., etc. The tax cannot act



on any of these facts in the industrial condition. They all remain the same after protection is applied as they were before. If, then, there are profits in the protected industry, they are due, not to the industrial product, but to the tax. Indeed the system never can result in a mere transfer of a given amount from one man to another. The interference itself cripples industry and restrains production.

Every year that passes makes the protective system more mischievous and more irrational. When we look at the development of modern commerce we see that the effect of steam and electricity is to annihilate time and space as limitations on industry, to make differences of race, language, nationality, creed, color, etc., of less and less importance, and to fuse the whole human race together in one great industrial unit. The progress which is being made in this direction every decade is astounding. The nations give and take from each other in every domain of life. They exchange ideas, institutions, literature, discoveries and inventions, political devices, and every thing which contributes to human interests. The whole human race approaches nearer to a homogeneous unit to-day than the population of any single nation did a century ago. Every movement of our time tends to hasten or intensify the same tendency.

The great inventions which have exerted such a powerful effect to bring about all these changes have borne directly upon industry and commerce. They alter the relations of competition. They alter the conditions of production. They undermine all the tariff barriers and they are gradually making sport of all artificial restrictions. The nations which are crowded together on the soil of Europe to-day are armed to the teeth, ready to fly at each other's throats. Great interests are at stake to keep them separated from each other and to resist the beneficent forces which are drawing them to unity. Religious animosities, political preju-

dices, traditional jealousies, pretended patriotism, and tariff barriers are used to keep them apart—so that they can fight each other and serve the interests which live upon their isolation and distinct organization.

On this continent we have secured union and got rid thereby of "balance of power," national jealousy, big armies, and nearly all the traditional rubbish of "glory," false patriotism, and "nationality." We, too, however, have our protectionism and it has drawn in its train a certain measure of the European doctrines of national animosity and prejudice. We, too, contribute, therefore, to the attempt to thwart the beneficent movement which would bring peace and prosperity to mankind, instead of hailing its progress and helping it on.

In the presence, now, of the grand movement which economic forces are bringing on, in spite of the short-sighted ignorance and folly of man, how petty and ridiculous is any such device as a protective tariff for securing the prosperity of a nation! How mischievous it appears, by as much as it delays the advance of the movement which it cannot defeat!

The protective system is out of date. Its advocates have to maintain it by general doctrines, but every such doctrine is at war with facts and incapable of intelligible statement. It includes a policy, but if the policy were generally adopted it would become an obvious assault on civilization. When France and Germany put taxes on our grain and meat to make food dear to some of their own people and protect their agriculture, what American protectionist can rejoice in it as a triumph of his principles? When it is admitted that free-trade would be a good thing for all, if all had it, the whole case of protection is surrendered. Any economic doctrine which is to be accepted and believed must be capable of application to all cases, and that one which is applicable to all cases is the one which is true.

## AMERICAN MINERAL SPRINGS.

BY TITUS MUNSON COAN, M. D.

In a recent article I described the uses of mineral waters at home, and I said that while these uses were very real, still many invalids would be more benefited by a visit to the spring itself than by any home treatment. Some patients are so delicate that they cannot bear the fatigue of a journey to the spring, and yet are benefited by the waters; some others cannot afford the expense of visits to the springs themselves. In writing this article I have mainly in mind those to whom neither hinderance applies; and I purpose giving a brief description of some leading American springs, as before I examined the main diseases that are amenable to treatment by mineral waters. The natural history of mineral springs includes, practically, for us, but two divisions, —American and European; because these are the best known and the most accessible.

The number of our springs is immense; in this country over six hundred are places of resort. The earth is full of these healing waters. Wherever rain falls, wherever the underlying rocks are charged with medicinal substances, and wherever there is by virtue of their geological arrangement sufficient percolation through the rock to dissolve its constituents in greater or less quantity, there we have the medicinal spring. The rain-water is the solvent; the rock stratum, with its carbonates, chlorides, sulphates, iodides, is the dispensatory; the spring is the cup. And in no country are the medicines that nature thus distils more pure

and health-giving than in our own. Our springs are as good as any in the world. It only remains to develop the number and comfort of the spring establishments and to teach the patient the paramount importance of choosing and employing the waters under medical advice.

I was recently addressing an audience at Saratoga upon this subject; and I reviewed the leading springs of Europe and America, in view of their availability for the patient, as fully as possible in the time at my disposal. When I had done, a Brahmin in the audience arose and reproached me for not having descanted upon the springs of India! The springs of India are excellent, but for us they are not available. And in what I have here to say I shall keep to the places where at least reasonably good treatment and accommodation can be had; arranging the springs alphabetically, as in my former article I arranged the diseases.

The Alleghany Springs, in Montgomery County, Virginia, are situated near the head-waters of the Roanoke River, in a pleasant and beautiful country, and at the eastern foot of the Alleghany Mountains. The hotel, which is commodious, and the principal cottages stand on low hills, three miles from the nearest railway station. The excursions to the neighboring hills are very attractive.

A great number of constituents enter into the composition of these waters; but the most important are the calcic,—the sulphates of magnesia and of lime. They are purga-

tive, diuretic, and tonic. Dyspepsia in its various forms is the ailment most treated here, and the water is also of value in the cure of gall-stones, engorgement of the liver, and habitual constipation.

The Bath Alum Springs, in Bath County, Virginia, are iron springs, and are especially valuable in complaints that depend on an impoverished state of the blood, as scrofula and chronic diarrhoea.

The Bedford Alum and Iron Springs, Bedford County, Pennsylvania, are situated in a beautiful and healthful region lying about thirteen hundred feet above the sea-level; the average summer temperature is 66° Fahrenheit. They are an excellent chalybeate tonic, and are used for the same complaints as the Bath Alum waters just mentioned.

Berkeley Springs, in Bath, Morgan County, West Virginia, have been in use since the colonial times as baths. At "Lord Fairfax's spring" log huts and tents formed the only shelter. The day was passed in horse-racing, hunting, fishing, and certain hours were devoted to bathing. The pool was a hollow formed in the sand, screened by a thatching of interwoven pine boughs. At a predetermined signal from a tin horn, the gentlemen retired while the ladies bathed; the gentlemen in turn at a similar signal, occupied the bath. "Peeping Toms were dealt with unmercifully." The waters are indifferent thermal or mildly calcic, and are used with much benefit in cases of neuralgia. The screen of interwoven pine boughs was long ago superseded by a spacious pavilion, and there is a comfortable hotel.

The Bethesda and Clysmic waters, from Waukesha, Wisconsin, are largely exported. They are calcic-alkaline, and are used with success for affections of the kidneys and bladder. Even in the early stages of Bright's disease and diabetes many physicians think that they have been curative. They are both sparkling waters, and may be drunk in moderate quantity without prescription. The Clysmic is one of the best of all table waters.

The Bladon Springs, Choctaw County, Alabama, are a hundred miles north of Mobile, on the Tombigbee River. They are much frequented for their alkaline waters, which are given for dyspepsia in various forms.

The Upper and the Lower Blue Lick Springs, in Nicholas County, Kentucky, are waters of the saline-sulphuretted class. They are found successful in liver and kidney complaints, in chronic dyspepsia, and not infrequently in old cases of constipation. It was from the Lower Blue Lick that Daniel Boone and others of the early settlers got salt for curing their venison; and here one of the deadliest battles of the colonial time was fought with the Indians. There is here a hotel, the "Blue Lick House."

Thirteen hundred feet above sea-level, in Botetourt County, Virginia, are the valuable calcic purgative waters, the Blue Ridge Springs. They are saline-calcic, and almost exactly of the same composition as the Alleghany Springs, described above, and are used for the same complaints. The hotel is open from the 1st of June to the 15th of October.

The Buffalo Lithia Springs, in Mecklenburg County, Virginia, are three in number; two are calcic-alkaline and diuretic, and the third is ferruginous. They are diuretic and anti-acid, and are very effective in inflammations of the bladder and kidneys, and in gout and rheumatism. There is a fairly good hotel.

In a gorge of the North Mountain, Hampshire County, West Virginia, flow the abundant alkaline waters of the Capon Springs. Picturesque scenery, an elevation of eighteen hundred feet above sea-level, an immense hotel and bathing-pool, and many guests, are among the attractions

of this popular resort. The waters are highly charged with carbonic-acid gas. They are efficacious in the cure of acid dyspepsia, uric-acid gravel, catarrh of the bladder, and gastric catarrh. Their temperature is 66° Fahrenheit, and they have little taste or odor. The bathing establishment is large and well appointed. For years farmers have brought their horses to drink the Capon waters as a remedy for botts; and they have been prescribed with success for worms in children.

The Clifton Springs, in Ontario County, New York, are calcic-sulphuretted waters, similar in composition to the Greenbrier White Sulphur of Virginia, and useful for the cure of gout and chronic rheumatism, especially when these are complicated with disease of the bladder. A good establishment exists.

Few of the saline waters of our country are better known than the Columbian and the Congress Springs of Saratoga, New York. The former has a considerable proportion of iron, making it a good tonic water; the latter is cathartic in large doses, and it is commonly used in too large doses; the theory of many patients being that the more water they drink the better. There is no greater mistake. All of the strong waters require to be used with moderation. These are valuable in dyspepsia, engorgement of the liver, and abdominal plethora of many kinds.

The Cresson Springs, Cambria County, Pennsylvania, are situated among fine scenery in the Alleghany Mountains, two thousand three hundred feet above sea-level; the summer temperature seldom rises as high as 75° Fahrenheit. There is one spring of water that is almost absolutely pure; two others, called the Alum and the Iron Spring respectively, are good tonic waters. There is a good hotel, and the place is directly accessible by railway. It offers great attractions to the delicate invalid in need of a bracing mountain air.

Dansville, Livingston County, New York, has good alkaline-calcic waters, and deserves special mention here for its admirably appointed sanitarium, the largest, I believe, in the United States, and for the excellent hygienic and special bath treatment that is given. There is an accomplished medical staff; the new building is fire-proof, and the bathing appliances of many and varied kinds in particular, are the most perfect in the country. The establishment stands on a hill-side, and commands a fine view of the Canaseraga valley. It is open all the year round, and its great comfort and completeness make it well suited for nervous invalids or others requiring a protracted course of treatment. Special attention is given at the Dansville sanitarium to regimen and to diet, which in too many of our health establishments receive little care.

The Empire and the Excelsior Springs, at Saratoga, are excellent saline waters. Laxative in large doses, as they are usually given, in a smaller dose they have a tonic effect which has not been as yet properly appreciated.

The Fauquier White Sulphur Spring is situated in Fauquier County, Virginia, at an elevation of about one thousand feet, near the spurs of the Blue Ridge. For fifty years before the war it enjoyed great popularity. In 1862 a battle was fought upon the spot, and the two hotels were burned. The place remained comparatively deserted until 1884, when a new hotel was opened and the spring is now in a fair way to regain its old popularity. It is an alkaline carbonated water, purgative and diuretic in large doses, and valuable in the treatment of dyspepsia, anaemia, catarrh of the bladder, and some forms of dropsy.

One of the curiosities of American springs is found in the Geyser of Saratoga, a spouting spring. It was discovered

in 1870, by boring in the cellar of a bolt factory; the water inundated the building in the cellar of which the boring was made, spouting thirty feet into the air. It still spouts a steady stream, heavily charged with carbonic acid gas. It is used as a cathartic and tonic water. More than the rest of the Saratoga waters it is saline, containing five hundred sixty-three grains of table salt to the gallon, and it is highly charged with other salts in addition, containing in all nine hundred ninety-two grains to the gallon.

The Gettysburg Katalysine water is widely known throughout the country by exportation from the springs in Adams County, Pennsylvania. It is an alkaline-calcic water, clear and tasteless, and of excellent service in cases of gravel, calculus, catarrh of the stomach and bladder. There is a hotel, and the surrounding scenery is picturesque.

Glenn Springs, in Spartansburg County, South Carolina, a calcic-sulphuretted water, contain a great deal of sulphate of lime in combination with chlorides. The water gives relief in cases of engorgement of the liver, and of gravel. It is laxative. Dyspepsia, constipation, and catamenial derangements are also treated here with success.

On the western slope of the Alleghanies, on the line of the Chesapeake and Ohio Railway, in West Virginia, are the most fashionable springs of the South,—the Greenbrier White Sulphur. The great hotel stands on the Greenbrier Mountain, at a height of nearly two thousand feet above sea-level; the grounds are very attractively laid out, the walks and "mazes" being provided with romantic names; the mountain summits rise on the south and west. It is a beautiful place, and is frequented by most agreeable people. The waters are calcic, sulphuretted, and chalybeate; they act on the bowels, kidneys, and skin. The principal complaints treated here are dyspepsia, diseases of women, rheumatism, engorgements of the liver and some cases of chronic skin diseases. The bathing arrangements are complete, and there is no pleasanter place of resort in the country. The main caution needed is against excessive pleasure-seeking which may easily counteract the effect of the medical treatment if rational care be not taken.

The Hathorn and the High Rock Springs, at Saratoga, New York, are saline waters; the former is strongly charged with salt, and is very popular in treating functional derangements of the digestive system. In the doses usually given it is cathartic, and is used for the cure of dyspepsia, gout, and rheumatism. But as a tonic and alterative, in small doses, it has not received the attention that it deserves. The French understand these matters better than we do, giving the strong saline waters like those of Saratoga in moderate alterative doses, long continued, and with the best effects.

Perhaps the most abundant thermal waters in the country are the Hot Springs, in Garland County, Arkansas. There are sixty or more springs, all within a quarter of a mile of each other, on one side of a narrow valley which contains, on one side, the stores and houses, and on the other, the bathing establishments, all of which pay tribute to the government, although managed by private individuals. There are ten or twelve hotels of different grades. The waters are used mainly for bathing, as at Gastein and Pfäfers in Austria,—springs which these resemble in their constitution. The establishments leave much to be desired in the matter of neatness, but the treatment is very effective in cases of chronic rheumatism, gout, and neuralgia. Secondary and tertiary syphilis are also treated here. The waters are very slightly mineralized, and act as warm baths rather than as medicines. Any of the springs will cook an egg in a few minutes; and the waters are used for culinary purposes as they flow from the springs.

The Las Vegas Hot Springs, in San Miguel County, New Mexico, are most valuable thermal waters, quite equal in value to those just mentioned, and they possess the great advantage of a mountain climate. They are situated at the foot-hills of the Gallinas cañon, at an elevation of six thousand seven hundred feet and are reached by a branch of the Atchison, Topeka, and Santa Fé Railway. The climate is somewhat more uniform than that of most regions east of the Rocky Mountains. There are two excellent hotels and two bathing establishments, in one of which are given mud or peat baths. The place is an attractive one, and the treatment gives admirable results in cases of gout, rheumatism, skin diseases, contractions and stiffness of joints, and in some nervous affections.

Another thermal spring, and the only one in the states east of the Hudson River, is Lebanon Springs, in Columbia County, New York. Its temperature is 72° Fahrenheit; the flow is about five hundred gallons per minute. The water is used mainly for bathing. The place and the surrounding region are attractive, and the treatment is especially suited for delicate nervous invalids.

The Orkney Springs, in Shenandoah County, Virginia, are of three different kinds: the Healing Spring, a calcic water, serviceable in catarrh of the bladder, and in gravel; the Powder Spring, an alkaline water, adapted to dyspepsia, and the Bear-Wallow Spring, containing iron, and a remedy for chronic diarrhoea, anaemia, and for the anæmic form of scrofula. The hotel stands at about two thousand feet above sea-level; baths are provided; and there is good fishing and shooting.

The Poland Silica Springs, Androscoggin County, Maine, are almost absolutely pure water. They are used commercially, and there is a place of resort in an attractive part of the country.

The Red Sulphur Springs, of Monroe County, West Virginia, are beautifully situated near Indian Creek, with mountains rising on either side. Unlike other so called sulphur-waters which depend upon the presence of sulphuretted hydrogen gas for their name, they have for their chief mineral ingredient a peculiar sulphur compound,—an azotized base combined with sulphur. The waters are given with much success in diseases of the mucous membrane of the lungs. Their peculiar function is to allay its irritability; and for chronic bronchial troubles, pharyngitis, and laryngitis, as well as for the incipient stages of pulmonary consumption, these waters are of high and unquestionable value. They are cathartic in small doses, and diuretic in large.

The Richfield Springs, in Otsego County, New York, have come into much prominence of late years. They are a calcic-alkaline water, with sulphuretted hydrogen gas; their reaction is alkaline. They are of much value in the treatment of chronic muscular rheumatism, and sometimes in rheumatic gout; and the less obstinate skin diseases yield to their use in baths. The water is laxative.

The Rock Enon Springs (formerly Capper's), in Frederick County, Virginia, are eight in number; iron, alkaline, saline, and sulphuretted. They have been known as the Capper Springs for over a century. There is a hotel; baths are furnished, and the region is one of quiet and beauty. It is well adapted for a family resort, and especially for delicate and nervous invalids as women "forspent," in Chaucer's phrase, with laborious housekeeping.

The Rockbridge Alum Springs, in Rockbridge County, Virginia, are a very valuable iron tonic. They are clear, cold, and odorless and have an astringent taste and sometimes a purgative effect. In scrofula of the anæmic type,



in chronic diarrhoea and dysentery, they are an excellent remedy; and the salts of these waters, procured by evaporation, are when redissolved almost as efficacious as the waters taken on the spot. They are also valuable in the treatment of many of the diseases peculiar to women. There is a fine hotel.

Two thousand feet above sea-level in Monroe County, West Virginia, we find the Salt Sulphur Springs, a calcic-sulphuretted water. It is given for disease of the kidney and liver, for chronic skin diseases, and for metallic poisoning. The hotel stands in a pretty and rural spot, and there are convenient bathing facilities.

Sharon Springs, in Schoharie County, New York, are in a ravine with charming views around them. They are calcic-alkaline, sulphuretted waters; used as baths, their effect on skin diseases is often curative. Internally they are used with success in treating gout and rheumatism. Sharon Springs is an attractive place of resort.

The Underwood Spring, in Maine, is one of the purest of natural waters; containing less than two grains of mineral substances to the gallon. Strongly charged with carbonic acid gas, it makes an excellent table water and it is given for affections of the kidneys.

The warm Springs of Bath Court-House, Virginia, are thermal waters with a little sulphate of lime; the flow is in

volume sufficient to turn a mill, and they supply a magnificent swimming-bath in the establishment. Their temperature is 98° Fahrenheit. They have a peculiar feel or "texture," the skin taking on a velvety smoothness in the bath, which is compared to the Serpent Bath of Schlangenbad in this respect. These baths are especially popular with women. They are taken with success for chronic rheumatism, for amenorrhœa, dysmenorrhœa, neuralgia, and for diseases of the kidney and bladder.

This outline may be concluded by mentioning one more of the several springs that go by the name of White Sulphur. The waters of the Columbia White Sulphur, on the foot-hills of the Catskills, saline sulphuretted waters, are given in baths at about 100° Fahrenheit, for affections of the nervous system and of the womb. The place is a quiet one, and less expensive than some of the more fashionable resorts that I have mentioned.

I will close with the caution that is never out of place in the question of using mineral springs. Do not try to prescribe them for yourself, any more than you would prescribe other remedies. Find a good doctor, and let him decide for you where to go. It is not worth while to choose at random. A spring chosen under intelligent guidance is the only spring that is likely to be well chosen for the individual case.

## AT EVENTIDE.

BY FRANCIS NEWTON THORPE.

The drowsy glow of afternoon draws near;  
West wind and south on errands fleet contend  
And bear the burden of a monody  
Of nestling's chirp and droning beetle's hum,  
And hidden songster's clear, mellifluous lay.  
Now creeps from cliffs and caverns of the wood  
Toward open fields the clinging damp of eve,  
Whose coming is the herald of repose.  
From chambers of the air distills the dew,  
And silvers dusty blades. Back to the nest  
The wild bird calls her mate. The noisy cries  
Of copse and furrowed field to music melt;  
A distant, deeper chorus of the hours  
Joins with this minstrelsy of passing day

In nature's evening hymn. In countless host  
The silent shades now overspread the land;  
Light vanishes; the voices of the right  
Hush all to rest; and on the landscape changed  
A glorious radiance gleams from distant worlds.

Companioned with my solitary thoughts  
No converse have I with the mindless air;  
No secrets of the quiring hours I know;  
In tender leaf no rhythmic pulse detect;  
Nor hold communion with the elements;  
Nor yet the deeper mystery explain  
How through this nature God communes with me.

## SPELLING REFORM.

BY PROFESSOR F. A. MARCH.

The Right Honorable W. E. Gladstone says, "I often think that if I were a foreigner and had to set about learning English I should go mad. I honestly say I cannot conceive how it is that he learns to pronounce English when I take into account the total absence of rule, method, and system, and all the auxiliaries that people usually get when they have to acquire something difficult of attainment."

We are ready enough to smile at the blunders of foreigners. We Anglo-Saxons are often proud of our spelling, as a mark of superiority of race; as the Dogberry was right when he said, "that reading and writing cum by nature," and we were to the manner born. We do not remember the woes of our childhood. We have never counted up the hours we spent over the spelling-book and dictionary.

We still, perhaps, waver between *ei* and *ie* in *believe*, *deceive*; or between *cede* and *ceed* in *succeed*, *secede*, *proceed*, *precede*; or between *concrete* and *discreet*, *deign* and *disdain*, *guard* and *regard*. But we have long since forgotten our wretchedness when we could not remember whether *reign* was spelt *rein*, *rane*, *reyn*, *vayn*, *rain*, *rean*, *reighn*, *raighn*, or in some other way; when *sir*, *her*, *burr*, *myrrh*, *earth*, were as hard as *colonel*, *choir*, or *phthisic*, and the columns of the spelling-book were an army of monsters.

But every one who learns English has to battle with these difficulties, and the younger the learner is the worse they are for him. They entangle and add the reason of the child just beginning to think, as well as overload its memory.

Here is found the prime mover of spelling reform, the de-

sire to spare the children, their time, their temper, their memory, their reason.

THE LEADING ADVOCATES.

Almost all the persons actively working in spelling reform are educators. There are, to be sure, other eminent men interested in it,—Tennyson is a vice-president of the English Spelling Reform Association, and Darwin was; Mr. W. E. Gladstone and other statesmen in England, and Mr. Sumner and Mr. Stephens, of Georgia, in their day, with other American statesmen, are outspoken in favor of it. But most of the workers are teachers. The most widely known are superintendents of education, heads of normal schools, or professors of languages. Among the officers of the American Association are the Honorable W. T. Harris, for some time Superintendent of schools in St. Louis, Daniel B. Hagar, Principal of the State Normal School at Salem, Massachusetts, and J. C. Gilchrist, Principal of the Iowa State Normal School, than whom there are no persons connected with our public schools more widely known or more highly honored. Of university men among the officers there are Professor W. D. Whitney of Yale College, known and honored and trusted everywhere, and T. R. Lounsbury, the Yale professor of English; from Harvard, Professor Child and Professor Toy; from Columbia, President Barnard and Professor Price; from Princeton, Professors Hunt and Raymond; from Oberlin, Professor Ballantine; from the University of New York, Dr. Howard Crosby; and from Lafayette, Hamilton, Iowa College, Rochester University, the Universities of Virginia, Tennessee, Mississippi, and Texas, other well-known professors of languages.

Several editors are on the board: Dr. Wayland, of the *National Baptist*, Philadelphia; the Honorable J. Medill, of the *Chicago Tribune*; Dr. Ward, of *The Independent*, New York; Dr. Thomas, of *Lippincott's Gazetteer of the World*, and other dictionaries; Rev. W. G. Ballantine, of the *Bibliotheca Sacra*; Dr. Brinton, of the *Medical and Surgical Reporter*, Philadelphia; Dr. Hall, of the Metropolitan Museum.

The English Association is officered in a similar manner, with professors of the great universities and leading educators, among whom we count the venerable Isaac Pitman, the inventor of fonetic stenography, editor and publisher of *The Phonetic Journal*, which carries the gospel of spelling reform weekly to all English-speaking countries. Mr. Pitman declares that in his view it is second only to the Gospel of Christ.

The official agents of the American Association are the Secretary, Melvil Dewey, Chief Librarian and Professor of Library Economy, Columbia College, New York; Corresponding Secretary, C. P. G. Scott, Ph. D., for some time Instructor in Anglo-Saxon in Columbia College, now one of the editors of *The Century Dictionary*, 69 Wall Street, New York; Treasurer, Charles E. Sprague, A. M., 1271 Broadway, New York; Publishers, Library Bureau, 32 Hawley Street, Boston, Massachusetts.

A great deal has been done for the reform by the members and others acting independently. The shorthand writers especially have worked for it, each in his own way. The Cincinnati men, Mr. Benn Pitman and his associates and Mr. Longley, the New Yorkers, Mrs. Burns, Mr. Parkhurst, and others; and Mr. Lindsley, the inventor and teacher of American tachygraphy, and Mr. Knudsen deserve special mention; and there are hundreds known to the Association, and, I dare say, thousands unknown to it, who have done most valuable work in a quiet way.

There are some also who have done work of doubtful value in a notorious way. It is one of the infelicities of the present state of the reform that the great public hear little of the

work of the Association. It is reasonable, simple, unsensational. The newspapers generally say nothing about it; but every time a crank gets up a ridiculous alphabet, and writes absurd pamphlets and articles about it, the funny men see their chance, and paragraph after paragraph ridiculing spelling reform goes the rounds of the papers. The public get the notion from this that there is no agreement among reformers and no practical sense.

But there is really all the agreement that can be reasonably expected. The American Philological Association is a large body, embracing the linguistic scholarship of the country; its action on the reform has been taken, *nemine contradicente*. The action of the Spelling Reform Association has been nearly or quite of the same kind. With many members, of course, this is an assent or acquiescence as to many subordinate particulars. Many reformers want the Association to do many things that it has not done, but all agree that the amended spellings are good.

WHAT HAS BEEN DONE.

This Association was organized at an International Convention of spelling reformers at Philadelphia in 1876. It has from the first desired to devote itself as far as possible to practical work, referring all theoretic and scientific matters to experts, and obtaining its proposed alphabet, its rules of changes, and its lists of amended words from the philological associations.

The old spelling has been shown up. Statistics of its irregularities and inconveniences have been made out and published.

The vowel sound heard in *meet* is represented by forty different signs and combinations of signs; *a* as in *mate* by thirty-four; *o* in *mote* by thirty-four; altogether there are more than two hundred for our alphabet. The facts on this head are collected in a "Plea for Phonetic Spelling" by Mr. A. J. Ellis, the foremost scholar of England in the history of the English speech. Sum one has amused himself by demonstrating that *scissors* can be spelled in 596,580 different ways, all justified by the analogies of other words: *schies-sourrrhce* is a queer one, all right according to *schism*, *sieve*, *scissors*, *honour*, *myrrh*, and *sacrifice*. *Shakespeare* might be spelled *Schaighkespeighrrhe*.

The history of these irregularities has been studied, and it is now known to all students of old English that the worst of them are grounded in mistaken etymologies. The old *iland* is spelled *island*, because teachers who knew a little Latin and no Anglo-Saxon, thought it came from Latin *insula*; so they spelled the old *rime*, *rhyme* because they thought it was a Greek word like *rhythm*.

It used to be the fashion to condemn improvements in spelling as destructive of etymology. It is the universal testimony of the present generation of philologists that fonetic spelling would be an unspeakable gain to the science of language. So says Professor Whitney, and so Professor Max Müller, Professor Skeat, Dr. Murray, Mr. Sweet, and everybody. The opprobrium of English spelling is intolerable to English scholars. Archbishop Trench was the last survivor of the eminent defenders of the etymological value of English spelling, sole relic of a past world.

Statistics of education have been collected to show how much time is wasted by our irregular spelling. The Honorable J. H. Gladstone has prepared a standard book on that subject which is published by Macmillan and Co. He has collected official statistics of the time devoted to spelling in the schools of England, Wales, Scotland, Ireland, America, Italy, Germany, Holland, Denmark, Sweden, and in bilingual populations in Malta, London, Wales, and Scotland. The upshot of it is: "If English orthography represented English

pronunciation as closely as the Italian does, at least half the time and expense of teaching to read and to spell would be saved. This may be taken as twelve hundred hours in a life-time, and as more than half a million of pounds per annum for England and Wales alone." While English children are getting spelling lessons, the Italians are learning the laws of health, domestic economy, and civics; the Germans, science, and literature.

Statistics of illiteracy have been collected and studied. Dr. Leigh has made a specialty of them. There is a black cloud of it wherever the English language is spoken. And it is to be noticed that in languages like Italian and German, those who are put in the census as able to read, can read anything. They can read right off as soon as they learn the alphabet. But in English almost every word has to be learned by itself, and it is a long time after a man is said to be able to read, before he can read well enough to do him much good. In the census of 1871, thirty-one per cent of the males of England and Wales are reported as illiterate, sixty-four per cent as "nearly illiterate," and only four per cent able to read and write well. Of the females thirty-nine per cent are reported illiterate, fifty-nine "nearly illiterate," and only one per cent able to read and write well. There were 5,658,144 persons of ten years old and over who reported themselves illiterate at the United States census of 1870; there were 6,239,958 at the census of 1880. At least twice as many were nearly illiterate.

Beside the waste of time of pupils in school hours there is incalculable waste of other kinds; time spent by these very pupils out of school hours in learning spelling lessons. A large part of them worry through hours and hours at home with their mothers, and go on spelling in their dreams. There is the time of teachers, the time spent through life in looking up words in the dictionary. The student sits with a dictionary at his elbow, the traveler packs one with his linen and his Bible.

Out of 1,972 failures in the English Civil Service examinations, 1,866 failed in spelling.

The Right Honorable Robert Lowe, formerly Minister of Education in England, challenged the House of Commons that not half a dozen members could spell off-hand the word "unparalleled," and we all see the point.

The Earl of Malmesbury, having examined the state papers in the foreign office, says that no prime minister from Lord Bute to Lord Palmerston could pass an examination in spelling.

As one-sixth of our letters are useless, one-sixth of the time spent in writing is wasted, an enormous total for the English millions. So is one-sixth of the time spent by printers in setting up types, and a large share of other printers' work. So also a large percentage of the time spent in silent reading.

There is waste of money. The pay of teachers, the pay of printers, and the other costs that make up the price of books. We ought to get Bibles and dictionaries, and Shakespeares for one-sixth less than the present prices.

From the Philological Association has been obtained a phonetic alphabet, for showing the pronunciation of words in dictionaries, phonetic and orthoepic discussions, geographies, and the like; and a guide in making partial changes in spelling. It is ready, of course, for complete phonetic printing.

A school alphabet of modified letters for an introduction to our present spelling has also been obtained from experts.

By the joint action of the Philological Associations of America and Great Britain, we have rules for amendments of the present spelling, and lists of words to which they apply.

Collections have been made of the opinions of eminent

men on the reform, and a great number of them have been printed.

All sorts of objections have been carefully answered by authorities on the points to which they relate.

These facts and arguments have been placed before the public by the publications of the Association, by conventions and addresses, by lectures, and articles in the magazines and newspapers. There was a boom or tidal wave of interest in spelling from 1876-1880, both in America and Europe. The Germans and the Scandinavians reformed their spelling. There were spelling-bees and language clubs in every direction. Lecturers and articles were in demand. The Association was invited to meet with the great national bodies. It met with the National Institute of Instruction and three times with the American Educational Association, meeting thousands of the most active and earnest teachers. The state and county teachers' associations discuss the reform all over the country. The newspaper not only discusses it but experimented upon it, many of them. School books were prepared to promote it, and praised, if not much used.

Petitions to Congress were numerous signed for a commission to report on the spelling of the public documents, and the books used in the schools of the District of Columbia.

Several of the state legislatures authorized the appointment of such commissions.

#### WHAT IT PURPOSED.

The Association proposes to fight it out on the same lines it has been taking. The facts and arguments against the old spelling must be repeated again and again, the old objections must be answered a thousand times more. The documents must be circulated, the conventions must be addressed, editors must be persuaded.

But the Association now desires to make rapid advance in the introduction of amended words.

It hopes to see its phonetic alphabet widely used, and its school alphabet, but the main work just now before it is the publication and introduction of its lists of amended words. The first deliverance of the American Philological Association on the reform list, recommended that a considerable list of words might be used, in which the spelling might be changed by dropping silent letters and otherwise, so as to make them better conform to the analogies of the language and draw them nearer to our sister languages and to a general alphabet, and leave them recognizable by common readers. This was in 1875.

In 1878 the following list was reported: *ar, catalog, definit, gard, giv, hav, infinit, liv, tho, thru, wisht*. In 1880 the Philological Society of England took up the same work and issued a pamphlet of "partial corrections." By action of the two associations in successive years an agreement was reached in 1883, and a body of twenty-four rules for amended spelling was published "under the authority of the two chief philological bodies of the English speaking world." The rules cover a great number of words. The first one: "Drop silent *e* when phonetically useless", as in *granite, engine, live, vineyard, rained*, covers several hundred words, and is not always clear to every one in its application, as in *risen, single*, etc. Two or three rules may apply to the same word. It has, therefore, proved necessary to prepare an alphabetical list of amended words running through the whole dictionary. This list was reported to the Philological Association at its last meeting, and is now in course of printing. An attempt will be made to obtain for it the express approval of large numbers of eminent men, especially of school authorities, and to introduce it into the schools, into school dictionaries and spellers, and into general circulation and universal use.



It is hard to introduce such changes, mainly because they are for the benefit of posterity, and no class has any strong selfish interest in them. The Association is pushing its League, the members of which pledge themselves to use habitually some amended words. There ought to be a club of it at every school-house.

Considerable changes have been brought about in my day. I was taught to write *musick* and *honour*. The large number of words in which these spellings were used were rapidly amended by the personal efforts of Noah Webster. He visited printers and teachers, and put his list of words in their hands or fastened it up in their offices, and afterward he embodied them in his dictionary, and so enlisted the capital of great publishing houses on his side.

A similar enlistment of capital in behalf of the spelling of the philologists may be hoped for in the near future. Mr. Isaac Pitman's *Phonetic Journal* has a circulation of twenty thousand copies, and he has a great publishing

house beside. More than one million copies of his *Phonographic Teacher* have been issued. An Isaac Pitman in America might rival the English house in every kind of success. A quarterly magazine is now published under the care of the American Spelling Reform Association, by the Library Bureau, Boston. The Bureau also keeps on hand spelling reform aids, documents of various kinds, stationery printed with reform headings, rubber pad stamps, and so forth. A monthly magazine has just been started by the Phonographic Institute of Cincinnati, which promises much.

There is to be next fall in London an international congress to celebrate the semi-centennial of fonography and the ter-centenary of modern shorthand. Great preparations are making. Perhaps we may have another boom. We must urge on our petitions to Congress for the joint action of this country and Great Britain.

## PENSIONS AND PENSIONERS.

BY FELECIA HILLEL.

At the close of the last fiscal year, June 30, 1886, the United States Commissioner of Pensions, General John C. Black, submitted a report to the Secretary of the Interior in which he stated that the bureau had on its roll at that time 365,783 pensioners costing the government for the year over sixty-three million dollars. General Black also stated that during the year closed, the names of 40,857 new pensioners had been placed on the list, that 2,229 had been restored, and that 22,089 had been dropped. This enumeration, so easy to state, stands for an amount of work quite inconceivable to one unacquainted with the workings of the Pension Office.

At the time this report was submitted, the law allowed the Office to give pensions to all soldiers wounded in the military service of the United States, or who had incurred disability from their service, to the widows, minor children, and dependent relatives of soldiers, to all invalid sailors, and their widows, minors, and dependent relatives, to survivors of the War of 1812 who could prove sixty days' service, and to widows of soldiers in that war.

It will be seen that the business of the Pension Office in dealing with applicants for pensions, becomes twofold: to grant pensions to those the law points out as deserving, and to withhold them from claimants which it does not recognize. To do this the office must have on its records satisfactory evidence in the case of an invalid, that a man by such a name and from such a place actually had the service claimed, that the claimant is this man, and that his injury or disability is undoubtedly the result of his service; in the case of "widows, etc." (as the Pension Office officials tersely classify widows, minors, and dependent relatives), that the service of the soldier or sailor is as claimed, that the claimant's identity is established, and that there is no doubt about the dependence. To show briefly some of the striking features developed in gathering and handling this testimony and in forming conclusions, is the business of this article.

Under the law the number of persons who may receive pensions is, of course, very large, while the number who may pretend to have just claims is almost inestimable. The Pension Office has all kinds of people on its hands, both honest and dishonest; the old soldier, poor and disabled, who has spent years without filing his application

and only doing so now because his injuries are driving him to the poor-house; disheartened widows frightened at the money and time it takes to establish their claims and nervous at the questions; unreasonable women who know their husbands were in the army and indignant that the office does not take their word for it; well-to-do and healthy men determined to get still a little more to add to their incomes; and out-and-out frauds, keen, tricky, and prepared at every point.

Applications and testimony must be in writing and they come in showers. Last year the number of pieces of mail received in the Office was over two million, the mail some days running as high as eleven thousand separate pieces. Each communication referred more or less directly to a new case, a pending case, or had a bearing on the status of one already established. Of course this enormous correspondence must be handled with system and care, and a very perfect method is employed. Each new application for a pension and each application for an increase of pension goes from the mailing division to what is known as the Record Division, where it is recorded and, if a new case, given a number by which it is to be hereafter known on its travels through the departments of the Office. All future correspondence relating to this application is at once jacketed with the original application and testimony, the object being to keep everything concerning each case together.

The data required before the claim can be recorded and leave the division is, for an invalid claim, the full name and address of the soldier, with the company, regiment, and state from which he enlisted, also any other service he may have had. If a widow's claim, the above facts are required and also data regarding the pension, if any, the soldier drew. This data is sometimes slow in coming into the record division, claims lying for months before they can be recorded. In spite of this fact the division does an immense amount of work. Last year 34,960 invalid applications, 13,238 widow's, and 93,195 increase applications were recorded.

The examination of the evidence to establish the claim is given to what is known as the Adjudicating Divisions. There are five of these,—the Eastern, Middle, Western, Southern,

and Old War and Navy. The work in each is the same, the field of their labors differing. The first four deal only with pensioners of the late war. The Old War and Navy Division handles claims of sailors, of soldiers in the Revolution, the War of 1812, Indian wars, the Mexican War, and in all companies of the late war not enrolled in the regular army such as the sharpshooters organizations, the Missouri Brigade, etc.

The adjudicating of a claim is a work of great interest, and in its process details of the most peculiar nature often are developed. When a claim is sent to a division the chief passes it to an examiner whose duty it is to trace the claim through and satisfy himself that the evidence produced is sufficient to give or withhold the pension from the claimant. His first step is to call on the Adjutant-general at the War Department, who keeps the military record of the government, for the soldier's war history. If this history is found to be satisfactory the claimant is ordered before a Medical Board to be examined for the extent of his disability and its cause. In connection with the Pension Office about five hundred medical boards, each consisting of three Examining Surgeons, are scattered over the country. Some eight hundred examining surgeons are also appointed outside of the boards. If the surgeon reports that the disability actually exists, then the claimant must prove that it is the result of wound or exposure incurred while in service. If he can do this, then there need be little delay in putting through the claim, but herein lies much difficulty. The testimony of at least one officer and two comrades is required to establish the claim, and, scattered as the remains of our army are, it is often a difficult task to find them.

The trials with the cases are innumerable, and often very amusing. Men apply whose ailments are merely hatched up for the occasion and so clumsily that the trick is on the face. The natural results of age like loss of teeth are often made the base of claims; trivial ailments like headache are pleaded. A not infrequent "disability" is corns or bunions, the sufferer forgetting that his woes are occasioned by tight shoes while army shoes were always broad and furnished with low heels. The ignorance of claimants results in comical statements. I saw the letter of one would-be pensioner, in which he stated that he suffered with "consternation of the liver."

The Southern Division has peculiar trials. All colored troops are adjudicated by this division. The colored people as a rule have wandered so far from their original homes since the war, that it is almost impossible to track the necessary witnesses. Not four out of five of those who apply for pensions are able to sign their own names, so that in very many cases special examiners must be sent to them to take their testimony. Again few of them know even the date of their births and it is necessary to look up their former owners to obtain such data. The disability they allege is almost always a "misery." "A misery in the head," "a misery in the back," is their expression for what sometimes proves to be a very serious complication. It is said to take more time to complete a claim in the Southern Division than in any other department of the Office.

The Old War and Navy Division deals with a particularly interesting class of pensioners, and a vast amount of evidence comes to it which is of historic as well as personal value. Indeed this division is a store-house of historic odds and ends from which some day a patient historian will carry away valuable treasures. Old and rare signatures are frequent. In a hunt of an hour I came across that of Louis Phillippe, Lafayette, General Knox, and several of Washington; many of the latter were attached to commissions as

members of the society of Cincinnati of which association General Washington was president-general from 1787 until his death.

Fragmentary descriptions of many exciting scenes in our early history are stowed away in the files. Here is a letter from Washington describing the movements of the British about New York City; an almanac is with it dated 1777, containing a map of the city and showing the position of the British; another letter contains a description of the "tea party" of 1773, of the wounding of General Warren at Bunker Hill, and also of the nights of April 18-19, 1775; still another contains the details of the capture of the British General Prescott in Rhode Island, by Colonel Barton.

A pleasant "find" is an invitation to dine with Lafayette "at the Eagle Hotel, Richmond." This division shows as one of its curiosities a list of the last twenty-five Revolutionary soldiers who drew pensions; the youngest lived to be ninety-seven, the oldest one hundred nine, and seventeen of the number were over one hundred years old at death. It adds to this the record of the widow of Ebenezer Spaulding, a soldier of the Revolution, who lived eighty-three years after her marriage.

In the search for evidence concerning claimants, some queer developments are made. A wife not infrequently finds her husband instead of her pension. In one and one-half years the Middle Division has had forty-five such cases. For some reason the man had not gone home after the close of the war though he had succeeded in getting a pension. His wife supposing herself a widow had applied for a pension and met finally the startling objection: "There is but one thing to prevent,—your husband is still alive."

Fraud of every description is attempted, and in spite of diligence, sometimes goes undetected. A peculiar case came to light last fall through the indiscretion of the claimant himself. He had succeeded in getting his name on the roll both as an invalid sailor and soldier, and was drawing two pensions, but he was rated differently in each case. His disgust at this unfair discrimination between the army and navy was so great that he revealed his deception, charging the Office with injustice.

But the fraud is more than balanced by the pathos. An examiner bending over a pile of evidence has oftentimes in his hands the history of an entire family; not its births and deaths and marriages alone, but its minor history of heart-aches and heart-joys. Here a family Bible has been sent to show the record of Jack's coming into the world. A letter is with it, the first from Jack after he went into the service; it speaks of the strangeness of the new life and, perhaps, has a homesick word or two, or the stain of a tear drop on the closing page. Here is his Christmas letter, written on a cracker box, he says, by the light of the candle dripping from the iron candlestick screwed into his rough desk. He sends his last money to help them tide over the hard season and tells in a homely way how he longs to see them all, how he dreams of them at night, and sees them at the village merry-makings, and about their daily duties. He asks after Brindle, the cow, and Old Bill's heaves, and inquires if John Jones has brought home his rabbit-trap yet. Homely? Yes; but where in all the world are records more pathetic?

When an examiner has developed a case as far as he can with the evidence at hand, he returns it to the head of his division with his verdict. The chief passes it to a higher board known as the Board of Review. It may be that the evidence is so clear that the examiner in this division with little hesitation pronounces the decision in the first case correct, and passes it at once to the Board of Re-review. If the decision has been favorable to the claimant in the previ-

ous divisions and the re-reviewer agrees, he passes the case to the Medical Division, where the medical side of the claimant's case receives careful attention and where the pension is rated according to the amount of disability sustained. The cases are distributed in the medical division according to the nature of the disease. One set of examiners generally confining themselves to one class of diseases. When cases do get beyond the reviewers and re-reviewers, the medical division many times puts its finger down on them for the good and sufficient reason that the disability claimed is not a pathological result of the injury sustained; for example, hernia cannot produce rheumatism, yet this claim is often made. A man who loses his finger bases his heart disease, lung trouble, and all other ailments on that loss, and demands a pension proportionate. And vast is the abuse the office must take if it does not agree with the claimant.

If the medical examiner agrees that the medical side of the claimant's case is indisputable, he gives his opinion of the rate of pension he should be allowed. The law has fixed rates which vary according to rank and the extent of disability and from these printed rates the Commissioner of Pensions fixes a rate for partial disability and complications. The case rated, it is practically "through." The Certificate Division now takes it, recording in its files the name, service, disability, and rate, and the agency at which the pensioner is to draw his money, and making out the certificates necessary for both pensioner and agency. This division does its work with admirable dispatch, the theory being that now that the case is satisfactorily settled, the pensioner should have the benefit as speedily as possible.

But one important step remains, that the commissioner examine the evidence and affix his signature. After his decision the claim is passed to the pension agency in whose district the claimant resides and to which he is to go to draw his pension.

But the slips on the way from the adjudicating division to the agency are innumerable. Perhaps the reviewer disputes the examiner's decision, the re-reviewer upholds him, and the claim goes back to the division, charged with error. If the examiner cannot prove his point or get hold of more information, the claim is probably sent to the rejected section. Often it lies there year after year. Nothing prevents the claimant's sending in testimony at any time and having the case re-opened, nothing prevents his applying to the commissioner, but proof he must produce before his claim can go on.

The Pension Office has devised as a supplement to its work a field department of Special Examiners. The object of this board is to protect the government from being deceived on points of evidence which can be established only by trustworthy eye-witnesses. The special examiners, of whom there are about two hundred fifty in the field, are sent out whenever the board of review thinks best, to examine into matters. They must be men of shrewdness, common sense, and judgment; they need some medical knowledge, a little law, and a thorough acquaintance with human nature. Many of them have a hard life of it, being sent in all directions, often riding long distances on horseback, and exposed to all the hardships of such travel. They make queer discoveries: through their work it is frequently found that the disability for which a pensioner is drawing his money existed before the war; many times it is shown that pensions are embezzled by guardians or attorneys; false personations are often brought to light; and many a widow is found supporting a second husband off the army record of the first.

But the soldier is helped as much as the government is protected by this board, for the examiners are constantly

employed in working out claims for worthy soldiers who are too poor, or too helpless, to help themselves.

A valuable new department of the Office has grown out of the special examiners' work; it is the Army and Navy Survivors' Division. In 1883 of 244,000 cases pending, 204,000 awaited testimony, most of them of comrades and officers, as to the origin and extent of disability, but there existed no systematic way of getting at these persons. Major F. A. Butts, at that time a reviewer, found a copy of a roster published by a post of the G. A. R., an aid in procuring witnesses to a claim at which he was working, and immediately suggested to the commissioner in charge that a list of surviving soldiers and sailors with their addresses be obtained. Through the help of the G. A. R. this suggestion has been acted upon and a list of over seven hundred thousand names and addresses is now in the Office. The department has been made a separate division by General Black. The division is working up also lists of ex-prisoners of war, of United States surgeons, of United States volunteers, and contract surgeons. A good illustration of its efficiency is the case of a soldier of the state of New York, who was wounded before Richmond so severely as to cause paralysis of his lower limbs. His claim had been pending fifteen months, but he could find no one of his former officers or comrades. The survivors' division furnished him a list of the members of his company still living. His case was so severe that a special examiner was sent to his old captain and from him it was learned that the soldier had been wounded in the same battle as the captain, that as he lay in the field an officer of the enemy had passed by and stabbed him in the back, that the wounded man grasped his rifle and shot his assailant in the head. He was afterward sent to the prison camp at Fort Tyler, Texas, where he remained many months before he was paroled. Even this extreme case could receive no assistance from the Pension Office but for the survivors' division.

The Law Division is another new departure of growing usefulness in the Pension Office. Its business is chiefly advisory; all appeals from the decision of the commissioner, prosecutions of fraud, and matters of similar nature are considered by it.

What has been said applies most directly to the work on invalid cases. The claims of "widows, etc.," are investigated in much the same order, the points of proof being the soldier's record, the identity of the claimant, and the fact of dependence.

Another class of claims causing much work and worry is those for increase of pension. It would be well for the Pension Office if after a case has been rated, signed, and turned over to the agency it would rest, but Banquo's ghost was not more restless than some of these pensioners. "More, more," is the ceaseless cry, and they return again and again with an additional ache or pain as a reason for an "increase."

In all the work of this bureau there are two directly opposite factors to consider: that every man receive his due, that no man cheat the government; aid and fraud must be constantly considered. The difficulty of keeping the mind unbiased in such work is appreciated by but few. This phase of the work leads to much ignorant abuse of the office. Mistakes are to be expected sometimes, and when a rogue does get a pension, it is taken by those who know him that it is due to the inefficiency of the Office. Where a worthy claimant fails, it is set down to his not having money or "influence" enough to buy his way in. A candid look into the machinery of the office, an examination of the extraordinary care which is taken to prevent injustice to either government or



soldier, and a consideration of the difficulties to be overcome must surely convince an unbiased mind that the Pension Office is doing a magnificent and patriotic work with patriotic zeal, that it is the friend of the honest soldier and the foe of the fraud,—what more could be asked?

Under the present administration—and I know nothing from personal examination of its workings under any other—its work is done openly and candidly. General Black is

a man of high purposes, perfect courtesy, and enthusiastic devotion to his work. Attention is given by his order to the least fragment of testimony, and aid freely given the poor soldier in helping him gather needed testimony to put through his claim. He is an economist, but not a retrencher of usefulness; and under him I believe this important bureau of the government is administered with honesty, efficiency, and generosity.

## NOTES ON A TRIP TO THE PACIFIC.

BY PROFESSOR J. H. MONTGOMERY.

A journey to the Pacific coast is now within the reach of several times as many people as it was ten years ago. The rates have been reduced by the competition of the lines, and the system of pooling tickets has been so extended that one has only to go in the summer season to the nearest railroad station to buy a round trip ticket across the continent. Last year the cost was a little more than one cent a mile for transportation.

Each route to the Pacific has its special advantages; but for travelers who must make haste and, therefore, must confine themselves to one, there can be no doubt that the Northern Pacific presents the largest number of attractions. There is less uninteresting country along the line; the climate along the whole line in the summer months is bracing and health-giving; the dining cars are specially convenient and excellent; the officers of the road have for several years been giving special attention to summer travel and have almost perfected arrangements for the comfort of their guests. The trains of the Northern Pacific constitute a kind of traveling hotel, and they are so successfully managed that those who have once patronized them will do so again, if possible.

Landing from a northwestern train in St. Paul on a July morning, we found ourselves suddenly within the region of bracing and exhilarating air. The effect upon us resembled a mild form of intoxication, and the antics we cut in the streets of St. Paul must have left some doubtful impressions upon the citizens who may have chanced to observe us. The elder member of our party had been in St. Paul some twenty-five years before, having reached it by steam-boat on the Mississippi River, when as yet St. Paul and Minneapolis were twin villages some ten miles apart. The change was one of those things to which we in this country are thoroughly accustomed; but it was hard to realize that these two cities were even in the same place as the two villages of 1860. Of the two (let us say without offending local pride in either place) St. Paul seems the more solid, and Minneapolis the more pushing; the two are practically one already, and their political union must come about within the present century, constituting them one of the six great cities of this country. With Brooklyn merged in New York the list will probably run,—New York, Philadelphia, Chicago, St. Louis, St. Paul, and Kansas City.

A journey to the Pacific resembles a voyage across the ocean. The passengers on the trains are like a ship load of human beings, making, for the time being, a society of their own. They become acquainted with each other; they form friendships; they part reluctantly at the end of the journey. There is, however, one great difference; the ocean is substantially the same everywhere; and unless a storm comes to enliven the scenery, the ocean world is an exceedingly dull and uninteresting one. But in a journey across

the continent even a flat prairie presents objects of interest and of enthusiasm. We did not find a mile of our journey from St. Paul to Vancouver's Island entirely destitute of interest and charm. No two of the prairies in the long journey are alike; none of them are without undulations but some approach very nearly a floor level. We had often wondered whether it were indeed possible "to get out of sight of land on a Dakotan prairie." That is to say, to look in every direction to the horizon line and see no tree, will not be long true, for tree planting is increasing in Dakota; though it was true in 1886 that being out of sight of land is the commonest experience in northwestern Dakota.

Our first real disappointment was the discovery that Bismarck is not a great city, and that it is not likely to become one in this century. On the map, Bismarck looks a natural queen of an immense region; and one cannot help thinking that enterprise might have given it such a supremacy; but for some reason it does not look imperial. Probably there have been too much politics and too little commercial enthusiasm. It would seem that there must be a great city on the Missouri River not far from Bismarck; and disappointing as it is there is no other town in the region with as good a chance for the first place. Mandan across the river is every way less promising. The two towns have together only seven thousand inhabitants, a fault which may be corrected in time; but one cannot help wondering why Fargo in the center of the Dakota prairies should have a third more population than these two favorably located cities.

One hundred fifty miles west of the Missouri River we come to the Little Missouri River country, the most striking feature of which is the strange country called the Bad Lands. The railroad winds for several miles through fantastic elevations which look more like haystacks of various forms than anything else, and which at first affect the sense and imagination with a strange fascination. A little observation satisfies one that these queer looking elevations are not in fact such, but that the original level of the country is at the top of them, and that we are winding through channels which have probably been dug by water. If the reader will take a large loaf three or four inches in thickness and cut from the top to the bottom so as to leave round, square, and other figures for elevations, and then imagine a railroad train winding through these cuts at the bottom of the loaf he will have a general idea of the situation.

Owing to the peculiarities of the geological history of the Bad Lands they have furnished special advantages for scientific study. Some new treasures of this science have been found here, and there are probably great discoveries yet to be made in the region; for only a few of our scientists have given, up to this time, serious attention to the resources of this field. Many principles of geology are illustrated

with striking clearness in the sides of these haystacks (called buttes). For example, far up the sides of some of them you will see bands of lignite from two to five feet in thickness, and in one case we counted four such bands separated from each other by considerable breadths of other deposits.

At the time of our visit a drouth prevailed along the entire line, and the general appearance of vegetation was far from satisfactory; nevertheless very respectable harvests were realized even in the situations least favored with showers. But a great principle in agriculture, which is applicable to nearly all of this country has a special application to western Dakota and Montana; and that is that the results of farming until systematic irrigation supplies the lack of regular and timely rain-fall must be very uncertain. In the valley of the Yellowstone in the vicinity of Billings and Park City, a large and effective system of irrigation has been put into operation. An irrigating ditch thirty-nine miles long furnishes a regular supply of water to about one hundred thousand acres of land, and the result appears in a marked contrast between this irrigated region and the lands adjoining it.

At Livingston, one thousand thirty-two miles west of St. Paul, the traveler leaves the main line and makes a delightful journey to Yellowstone Park. The rhetoricians have called it wonder-land and various other animated names; but descriptions are useless. The Yellowstone Park is one of those things of which one can have no knowledge without seeing it. It is little more than one hundred miles farther to Helena which is likely to be one of the great cities of the country, and which is now said to be the richest city of its size in the whole world. It is the residence of the rich mine owners and ranchmen of a vast region; and it has made more progress in the development of manufactures than would have been expected. The approach to Helena either way is striking. To the eastward lies a great plain sloping to the Missouri River, and towering above the city are the Rocky Mountains. The magnificence of nature in the midst of which the city stands, overpowers and belittles the work of man. What is any building which human hands can make by the side of this comb of the continent rising two thousand feet over the head of the city? At Helena we are four thousand feet above the level of the sea, but we have been climbing so long that we are hardly aware of our elevation, and nothing in the surroundings suggests it. The air is crisp and bracing, but this may be said of the air along the whole route. But having left Helena we begin immediately to climb in dead earnest, and in twenty miles we have climbed up to the Mullan tunnel sixteen hundred feet above Helena.

On neither side of the tunnel do we seem to be at a great elevation. Crops are growing, trees are not abundant, but they are quite as dignified as any we have seen since we left St. Paul. The descent on the western side is very gradual; we, in fact, go down hill for four hundred miles.

Travelers in crossing mountains, whether they travel with horses or by steam, find themselves in the companionship of streams along which they descend toward the plain. It was to us an impressive fact that we had but just left the Missouri behind us when we found ourselves on the banks of the Oregon. From the summit of the mountain we wind through gentle valleys until we reach Clark's Fork of the Columbia, and then follow it until it disappears from us in Lake Pend d'Oreille.

One must travel along the line of the Northern Pacific to find anything on the continent more interesting than this lake and its borders. Together they are more beautiful

every way than any one of the Swiss lakes. This spot is certain to be one of the great summer resorts of the future.

The largest town between Helena and Portland is Spokane Falls, with, perhaps, six thousand inhabitants. The city is built under a forest of cedars, which produce a quaint effect on the eye of the stranger. It is a very bright and enterprising little city with every prospect of becoming a great one.

One hundred fifty miles farther west we find ourselves on the banks of the Columbia itself, after a journey of five hundred miles along its tributaries. We meet the Columbia at the point where it breaks through the Cascade Mountains and fights its way through the western ribs of the continent to the Pacific. Here are two wonders. The first is that desert, so far as we could judge a genuine desert, which borders the Columbia at the point where it pierces that solid mountain wall. The sands travel about as the wind listeth, and the tourist is generously supplied with that fine flour which has been ground out of the mountain stone by forces which are invisible to the eye of the traveler.

For a thousand miles we have been traveling through a country where those Titans of science, volcanoes, have some past time amused themselves by hurling mountains at each other.

The whole country is strewn with volcanic rocks, and when we pass through this gate into the mountains we find ourselves in the presence of a still more magnificent manifestation of volcanic energy. New Yorkers boast themselves of the Palisades of the Hudson, but the Columbia travels for fifty miles at the base of a system of palisades constructed on a scale so grand that they reduce those of the Hudson to insignificance. To us the procession of palisades rising tier above tier was a delightful surprise, for none of the guide books had prepared us for such an exhibition of volcanic energy.

Probably very few persons understand the mountain system of the West. We may be pardoned, therefore, for informing them that there are four mountain ranges, extending from north to south, between the Missouri River and the Pacific coast. First of these is the Crazy Mountains, the second, the Rocky Mountains, the third, the Cascade Mountains, and the fourth, the Olympian Range. The Olympian does not extend below Portland. It is equally worth noting that the high elevations of the Pacific coast do not belong to any particular range of mountains.

The journey down the Columbia is worth the whole trip; the points of interest are the Dalles, Multnomah Falls—eight hundred feet—the fisheries, and the cedar forests. In the midst of this magnificent nature it is appropriate that man should fish on a large scale. Imagine a flat boat with a wheel attached, having buckets made of netting, and then imagine the wheel in motion and the salmon tossed into the boat by its revolutions.

Portland lies in the Willamette Valley, twelve miles from the Columbia and one hundred miles from the ocean. Its river harbor is one of the finest in the world, and no other great city has quite so beautiful a situation. The greater part of the city lies on the west side of the Willamette on a plateau rising gradually to the base of a range of hills. The town has filled this plateau and has begun to climb the hillside. It has also crossed the river, and East Portland with a more rapid ascent toward higher hills, and, therefore, a more slightly situation, will probably be the magnificent Portland of the future.

We have exhausted our space, but there are three or four items in our notes we cannot overlook.

First, the magnificence of Mount Hood and Mount Rainier.

The sun seldom shines, we were told, at Portland, but we were favored with a bright evening on which, just before sunset, we had a glorious vision of St. Helens, Adams, and Hood, the three gigantic sentinels standing guard over Portland.

Second, at Portland and everywhere else we met with the Chinese. We were impressed with their industry and the gentleness of their manners. We found everywhere a strange and fierce American feeling against them. In Portland we saw boys stoning them.

Third, the great forests between Portland and Tacoma and along the border of the Puget Sound. These are of red wood and cover most excellent soil, and are interspersed

with bits of prairie on which we saw the finest wheat we have ever looked upon.

Fourth, our journey on Puget Sound to Victoria. Puget Sound is an immense harbor. The entrances to it from the sea are so narrow and circuitous that the Sound is but little affected by the tumult of the sea.

Somewhere on Puget Sound there must rise a great city. It will have at its feet the greatest harbor in the world, and tributary to it, the wealth of an immense country. Whether that city is to be at Tacoma or elsewhere will be decided by local enterprise. In all other respects the competitors have nearly common advantages—their one great wealth being this deep land-locked interior sea.

## OUTLINE AND PROGRAMS.

### OUTLINE OF REQUIRED READING FOR JUNE.

#### First Week (ending June 8).

1. "Pedagogy: A Study in Popular Education." THE CHAUTAUQUAN.
2. "Civil Engineering." THE CHAUTAUQUAN.
3. Sunday Reading for June 5. THE CHAUTAUQUAN.

#### Second Week (ending June 16).

1. "The Rocks Tried by Fire." THE CHAUTAUQUAN.
2. "Studies of Mountains." THE CHAUTAUQUAN.
3. Sunday Reading for June 12. THE CHAUTAUQUAN.

#### Third Week (ending June 23).

1. "Practical Suggestions on English Composition." THE CHAUTAUQUAN.
2. Sunday Reading for June 19. THE CHAUTAUQUAN.

#### Fourth Week (ending June 30).

1. "The Woman's Hour in Foreign Missions." THE CHAUTAUQUAN.
2. Sunday Reading for June 26. THE CHAUTAUQUAN.

### SUGGESTIVE PROGRAMS FOR LOCAL CIRCLE WORK.

#### FIRST WEEK IN JUNE.

1. Roll-Call—Quotations about Health, and the means of promoting it.
2. The Lesson.
3. Paper—The Sanitary Condition of our Town (or City).
4. General Discussion of the preceding paper. (Make the paper and the discussion of the most practical character. Show the specific, local need of sanitary engineers. Do not handle the subject with gloves. See the article by Charles F. Wingate in THE CHAUTAUQUAN for November 1886, "Sanitary Needs of Country Houses." It might be given as a select reading.)

#### Music.

5. Sketch—William Makepeace Thackeray.
6. Select Reading—Sketch of Thackeray in "Yesterdays with Authors," by James T. Fields.
7. Book Review—"Henry Esmond," by Thackeray.
8. Table Talk—Current Events.

#### SECOND WEEK IN JUNE.

1. Roll-Call—Quotations about Mountains.
  2. The Lesson.
  3. Table Talk—Remarkable Collections and Specimens of Pottery.
  4. Reading—Longfellow's "Keramos."
- Music.
5. Sketch—Charles Lamb and his Sister Mary.
  6. Study of Lamb's "Essays of Elia," or one of them given as a select reading; the one on "Early Rising" will be found full of interest.

7. Paper—De Quincey and his "Confessions of an English Opium-Eater."
8. Blunder Box—Members are all to contribute slips of paper on which are written errors in grammar which they have noticed during the week, or during the evening. These are to be read and corrected.

#### THIRD WEEK IN JUNE.

1. Roll-Call—Quotations from The Lake School of Poets.
2. The Lesson.
3. Original or selected specimens of the different kinds of composition treated of in "Practical Suggestions on English Composition" in the present number of THE CHAUTAUQUAN.
4. Paper—Outline Sketch of Macaulay and his literary works.

#### Music.

5. Sketch—Lord Byron.
6. Selection—"Epistle to Augusta." By Byron.
7. A Talk—Causes that led Byron to write his satire, "English Bards and Scotch Reviewers."
8. Reading—Selections from "English Bards and Scotch Reviewers," especially the lines referring to Pope, Dryden, Southey, Scott, Wordsworth, Coleridge, and Burns.

#### FOURTH WEEK IN JUNE.

1. Roll-Call—Original Quotations about Vacation.
2. The Lesson.
3. Selection—"The Two Rabbits." By Whittier.

#### Music.

4. Paper—Sketch of Charles Dickens; his Characteristics as a Writer.
5. Book Review—"Tale of Two Cities." By Dickens.
6. Sketch—Alfred Tennyson.
7. Reading or Study—"Locksley Hall" and "Locksley Hall: Sixty Years After." By Tennyson.
8. Plans for next year's Local Circle Work.

A special evening should be given to a closing entertainment. It would be a good plan to have several neighboring circles unite on this occasion. Each one might give a report on its methods of work during the year, and a schedule of its plans for the coming year. A lecture by a specialist on one of the branches of study just finished, or an evening with the stereopticon or microscope would furnish an interesting and helpful exercise. For other suggestions see the programs in THE CHAUTAUQUAN for June, 1886, and the Local Circle reports in the November issue. All live circles will not neglect to make the most of this opportunity of making the work of the C. L. S. C. more widely known, and of strengthening their own organization.



## LOCAL CIRCLES.

### C. L. S. C. MOTTOES.

"We Study the Word and the Works of God."—"Let us Keep Our Heavenly Father in the Midst."—"Never Be Discouraged."

### C. L. S. C. MEMORIAL DAYS.

1. OPENING DAY—October 1.
2. BRYANT DAY—November 3.
3. SPECIAL SUNDAY—November, second Sunday.
4. MILTON DAY—December 9.
5. COLLEGE DAY—January, last Thursday.
6. SPECIAL SUNDAY—February, second Sunday.
7. FOUNDER'S DAY—February 23.
8. LONGFELLOW DAY—February 27.
9. SHAKSPERE DAY—April 23.
10. ADDISON DAY—May 1.
11. SPECIAL SUNDAY—May, second Sunday.
12. SPECIAL SUNDAY—July, second Sunday.
13. INAUGURATION DAY—August, first Saturday after first Tuesday; anniversary of C. L. S. C. at Chautauqua.
14. ST. PAUL'S DAY—August, second Saturday after first Tuesday; anniversary of the dedication of St. Paul's Grove at Chautauqua.
15. COMMENCEMENT DAY—August, third Tuesday.
16. GARFIELD DAY—September 19.

#### THE SCOTTISH BUDGET.

The Reverend Donald Cook writes as follows of the progress of the C. L. S. C. in Great Britain:—

In looking into the April number of *THE CHAUTAUQUAN*, which is now beside me, I see that I have described the work as having spread itself over the whole of England and Scotland. Several places silent at that time have now replied, of these the most important is Manchester. Two or three have now joined in Manchester, and expect to form a local circle by next winter. The principal of a theological college in that city sent me a letter cordially approving the scheme. So have two other principals of theological colleges in other cities. I find that upward of forty have joined the ranks since I wrote you last. This is very encouraging, more especially as the season is now so far on. I am glad that so many ministers all over the country are becoming members. Already the number of them alone is nearly one hundred. Many more have been making inquiries and hope to do something next winter. The catholicity of the movement is very marked. All the leading evangelical denominations in England and Scotland have been represented.

The tendency of this movement to root itself in Local Circles as it grows, is beginning to reveal itself here already. There are several places where from two to a dozen or so meet together for work. The *esprit de corps* is quite marked in some instances. I hope we may be able to show that it was from us you received that enthusiasm which now rolls in an educational wave across the American continent.

The Class of 1890 has yet another trophy to lay at the feet of Chautauqua beside England and Scotland. We have broken ground in Ireland. We have enrolled members, male and female, clerical and non-clerical, already. Not only so, but the Irish members are determined to work. I wish *THE CHAUTAUQUAN* were able to print the letters received from Ireland, but this cannot be, for the Irish have the gift of speech, and nothing but an extra supplement would suffice. I shall give a few extracts from one member's correspondence. He is a rector in Ireland:—

"Nearly twelve months ago I saw an advertisement of the Chautauqua Circle in the *Pulpit Treasury*, and I then wished the system could be extended here. But as I did not see American periodicals often nor any mention of the Circle in English papers I thought the intention was to keep the Circle exclusively American. Judge of my surprise when I saw your advertisement. I shall be glad to help the Circle in any way I can. If you do not think it presumption on my part I would be glad to assist you as far as Ireland is concerned."

[As I am a Home Ruler I had no scruples. The sooner he forms a national Chautauqua League in Ireland the better. Only he must be loyal to the "Imperial Chautauqua."]

"The Chautauqua international idea is a grand and noble one, evidently based on St. Paul's exposition of the all-embracing character of the true church of Christ as set forth in the Epistle to the Ephesians III. 15."

In another letter he says:—

"I feel quite sure there are many in Ireland who would be glad to join the Circle if it were introduced to their notice. The Chautauqua seed will grow. I know what it is to have the keen, quiet thrust on account of favoring American institutions, but thank God that kind of thing is slowly dying away."

I do not know whether it will yet be reserved for the Class of 1890 to add another country to its spoils, but here at least is a good indication. Shall we add China? A gentleman leaving Scotland lately wrote me this:—

"Some little time ago I got your circular about the C. L. S. C. and would wish to know some more about it. I leave Scotland for China at the end of March in connection with the China Inland Mission. Could the course of reading suggested in your circular be introduced among English-speaking people in the ports? What think you?"

I sent him a copy of Chancellor Vincent's book that he might read upon his voyage and be ready to take action if advisable not only among the English but the natives.

I am not sure whether this is the first year of C. L. S. C. work in France, but certain it is that members are now enrolled in Paris. If this is the *first* year then the 90's have it again. I have had two letters from members in Paris within the last day or two. Let me come back to my own country in closing. Out of the notes coming in every day, I give a sentence or two. A church of England clergyman writes:—

"The circular you kindly sent I have read with much interest, and feeling as I do the large field of usefulness open to such a movement it will afford me very great pleasure to do anything in my power to secure its extension."

Another clergyman in the same church writes:—

"I have read your circular through with great interest. In fact I feel half inclined to enter the Circle as I feel it will be useful to me in going over some of the studies which I used to pursue in my school days."

The nonconformists write in the same strain. One writes this week:—

"I have carefully read and considered your circular. I am very glad and am obliged to you for directing me to such a Circle, for my first impressions thereof are very favorable and should they be confirmed by the further inquiries I am hereby about to make I purpose eventually to seek membership in the society."

Extracts of this kind could be multiplied by dozens. Here is a specimen from a lady:—

"I am greatly obliged to you for sending us a circular of the C. L. S. C. It is a delightful organization. If such a society had been in existence thirty years ago when I was a girl of eighteen, how gladly should I have availed myself of its advantages. I fear that the only thing I can do now is to make it widely known among my acquaintance especially my *young* friends. One of my step-daughters has just matriculated (London) and is beginning life for herself this term as a teacher. It will be splendid for her. Please send me a dozen copies of the circular. I will do my best with them."

Here is another from a lady going through the course:—

"I am delighted with the course as I do not feel it too much for me. It is plain and practicable. I may not be able take the entire course as I began too late, but shall do my best. I have only missed one day since I joined, and it was through illness."

I shall close this letter by an extract from the letter of a minister in the north of Scotland, one of the first who joined, giving his experience of the readings until now:—

"I often thought of dropping you a note. I see the Chautauqua idea of education is becoming a little known in the North. I am not aware, however, of any active work save the notice I saw in one of our local papers about it and referring to you for information. I have to thank you very much for bringing the subject before me. I have been a regular Chautauquan ever since, and more and more a disciple of the idea. I am a regular reader of the American set of books, and of *THE CHAUTAUQUAN*, which is a most interesting and practical periodical. . . . I am delighted with the books and read them with more delight than a novel."

#### AMONG THE CIRCLES.

**NEW BRUNSWICK.**—A pleasant surprise came to a Carbondale, Pennsylvania, Pansy who moved this year to St. JOHN. She found a healthy circle of twenty-five members at work there, and at once joined them. She reports some pleasant features of their work. St. Valentine's Day was observed by original valentines, all in honor of the bachelor member at whose house the circle met. A new method of roll-call is practiced by this circle. At the end of the first hour a recess of ten minutes is taken and when again called to order the roll is responded to by verses of Scripture suggested by the Sunday Readings of the week.

**ONTARIO.**—There is a happy club of six members at HAMILTON. They give their meetings to free and easy discussion of the good things they have gleaned in their readings of a fortnight.

**MAINE.**—The *Dirigo* of LEWISTON continues work this year. —At CALAIS there are fifteen members in the circle. They usually follow the magazine programs. In addition some of Shakspeare's plays have been read. An excellent drill in reading is practiced by this circle. Selections are made from *THE CHAUTAUQUAN* and read aloud, criticisms on pronunciation and enunciation following.

**NEW HAMPSHIRE.**—The Granite Circle of KEENE wisely sends for Mr. Martin's pamphlet, "How to conduct Local Circles." The more tools the better, is wisdom in conducting your circle, remember. The Granite kindly expresses a hearty appreciation of *THE CHAUTAUQUAN* and declares *The Question Table* to be very enjoyable.

**VERMONT.**—From RUTLAND comes this letter brimming over with pleasure in circle work:—"Our circle is in the high tide of prosperity, having grown from a circle of three to one of thirty-seven. Although not as many are reading the full course as we could wish, still they are doing good work, and we hope many who are only local members this year will become so imbued with the Chautauqua idea that another year will find their names enrolled at Plainfield,

while they will fall into line and keep step with the large number already marching under the C. L. S. C. banner.

"We have introduced some changes in the observance of Memorial Days this year. January 4 we had an H. H. program which was very successful both as a literary and social event. The exercises included an essay on her life, reminiscences by a personal acquaintance, and a series of beautiful tableaux from "Ramona", and music. Our Longfellow Day was also a success. Eleven ladies who acted as a committee of arrangements, were dressed in elaborate costumes representing characters from Longfellow's poems. As they were introduced and the story of each briefly told, they came forward forming a very picturesque group. An excellent program of vocal and instrumental music followed, after which refreshments were served, making altogether an evening long to be remembered for its social and intellectual pleasure. Our memorial for March was in honor of Alice and Phebe Cary." —At SHELDON the circle is bravely doing back work. It was late in beginning last year and has resolved to finish the readings of 1885-'86, before taking this year's course. How energy and perseverance do overcome difficulties!

**MASSACHUSETTS.**—Thoroughness will do more to "root and ground" a circle, or anything else for that matter, than any other quality under the sun, so the Warren Circle of WORCESTER believes and so it practices. A teacher is appointed for each book and drills the class as carefully as possible in the limited time. Essays, music, and readings give variety to the exercises. —The Vincent of WESTFIELD dates from 1883, and still remains faithful. It includes thirty readers. —ROWLEY has a circle of twelve members who informally get over a great deal of ground in their meetings. They sing, talk, read, question, and answer, and, if time permits, play the Chautauqua games. —PLYMOUTH of historic fame has a circle of thirteen. It dates back to '82 for its beginning. —The AUBURNDALE Circle has twenty-one members this year, somewhat smaller than of old, but none the less effective we hope. —The Longfellow Circle of BROCKTON steadily keeps on the prescribed course. —A very beautiful and impressive Longfellow Memorial service was given at FALL RIVER under the auspices of the Amity Circle, all the Chautauquans of the city uniting. A vesper service was arranged and carried out, after which an address on "Self-culture" was delivered. The organist, choir, and a male quartet assisted in the singing. The large church was well filled and all must have felt a desire to know something more of the C. L. S. C. working; certainly every Chautauquan was stimulated and encouraged by the sweet fitness of this remembrance of Longfellow. —The circle at SOUTHFIELD has met once a week all the past winter and spring, doing work with thoroughness and conscientiousness. The C. L. S. C. evening at SOUTHFIELD has come to mean a great deal to those who observe it. Their faithfulness has made it an intellectual power to themselves and has won it the respect of the community. It is this persistent, continuous work which establishes the C. L. S. C. and extends its influence.

**RHODE ISLAND.**—The plan of one monthly meeting which the Whittier of PROVIDENCE has followed, it has changed slightly; a second meeting is introduced of a more social character. The following programs show the character of the regular meetings:—

Roll-Call—Authors on English Authors.

Music.

Paper—Outline History of English.

English Poetry in five Centuries:—Chaucer (1340-1400), Selections from "Prologue"; Spencer (1552-1599), "Prothalam-

ion"; Milton (1608-1674), "L'Allegro"; Pope (1688-1744), "Eloisa to Abelard"; Tennyson (1809—), "Lady of Shalott".

#### Music.

Paper—English Poets Laureate.

Paper—Development of the English Novel.

Game—Characters from English History including Wolsey, Strafford, Henry VIII., Elizabeth, Mary Stuart, Raleigh, Charles I., Cromwell, Marlborough, Pitt, Hastings, Nelson.

#### A FEW COMMON WORDS.

"Words, words, words."—*Hamlet Act II., Scene ii.*

Roll-Call.—Quotations about Words.

Paper—Dictionaries and Dictionary Makers.

Table Talk—A few Common Words:—Academy, bureau, crucible, damask, omen, sandwich, saunter.

#### TOPICS TO AID STUDY.

Language from which the word is derived; languages through which it has passed to reach the English; meaning in the original language; incidents connected with its origin; changes of meaning, if any; meanings in English; connected words from same root, of same meaning; biographical connections; incidents, quotations, etc.

#### BOOKS OF REFERENCE.

Dictionaries—Webster's, Worcester's, Imperial, Johnson's, Skeat's (Etymological), etc.

Encyclopedias—Britannica, Chamber's, Appleton's, Johnson's, etc.

R. G. White's "Every-day English", "Words and their Uses"; Hall's "Modern English."

Swinton's "Rambles among Words"; Hodgson's "Errors in the Use of English."

Arthur Gilman's "Short Stories from the Dictionary."

Olipphant's "Sources of Standard English."

Alfred Ayres' "Orthoepist", "Verbalist".

—LONSDALE has a circle which began in October last with fifteen members and now numbers thirty-one. A hektograph is used for program printing and is reported a great convenience. In studying astronomy a blackboard was employed for explaining the problems which puzzled the circle. The secretary notes that general exercises in which all participate seem to be enjoyed most and consequently the programs contain plenty of questions from the magazine, games, and the like.

NEW YORK.—From PALMYRA the circle reports a large measure of success and ascribes no small degree of credit to the indefatigable efforts of the president. All the devices possible are employed by the program committee to make the evenings pleasant. *The Question Table* is employed in the circle by these Palmyra friends, with good results.—The circle at WESTHAMPTON CENTRE, LONG ISLAND, is still at work.—From NEW LEBANON a report says: "Our meetings are of great interest. We make C. I. S. C. work a regular school, each member is given a subject upon which to prepare questions to ask at the meetings." This circle has been one of several circles of Columbia County to edit a Chautauqua Corner in a county paper. Some one from each circle was appointed to write for it every other week. The plan is admirable and cannot but help both the circles immediately concerned and the work as a whole.—The circle at MEDINA is meditating sending some one of its number to Chautauqua this season.

—The Nine Muses of HAMILTON have become seven, but the decrease has not injured interest nor efficiency. The seven are doing full work, learning the *Questions and Answers*, and celebrating the Memorial Days, in orthodox Chautauqua style.—A circle of two at CASTILE has devised a new and thorough method of circle work. Each member as she reads a book, writes out a set of questions, one or more on a chapter, covering the entire ground gone

over by the author. This is handed to her circle-mate who writes out the answers. At the next meeting the questions and answers are examined and discussed. The secretary of this delightful duo writes, "We have found it possible for a circle of two to be very enthusiastic."—The effect of careful reading is apparent wherever the members of the WELLSBURG Circle exert an influence, so one of the number writes. The Wellsburg is sensibly availing itself of every opportunity to learn by observation. An expedition was recently made to Elmira where the electric light works, the printing-offices, and the art galleries were visited, and the collections of the Academy of Science examined.—At JAMESTOWN the circle has succeeded admirably with its Memorial Day services. This circle has earned money for the nucleus of a library, by a public entertainment. Some of the members of the present society have been in rank since the organization eight years ago.—From FREWSBURG we learn of a group of four, all of one family, who are completing their fourth year of study. They are known as the Delicata. May such circles increase!

NEW JERSEY.—At least two of New Jersey's seaside resorts keep up delightful circles through the year. The Ocean GROVE Circle we have frequently noticed. The Seaside Assembly Circle at KEY-EAST BEACH is younger but a none the less healthy organization. Much is done by these assembly circles in spreading information about the C. I. S. C. during the sessions of the Assemblies.

PENNSYLVANIA.—Every town or city supporting several circles may learn something from the course of the United Chautauqua Circle of PHILADELPHIA. This organization has in preparation and expects to be able to announce shortly a series of lectures on astronomy; thus far this season it has given eight lectures and entertainments. The admission to these entertainments is free to members and their friends upon the presentation of membership tickets. An effort has been made to have those subjects which need demonstration elucidated by lectures delivered by the best talent obtainable. In this the circle has been very successful. The membership at present numbers about two hundred fifty. The membership fee is one dollar. From this it will be noticed that one dollar put into this enterprise is an unusually good investment. Next year it is hoped that every Chautauquan in the city will be enrolled, which will enable the circle to have the most comprehensive course of lectures ever organized outside a college or university.—DARLINGTON is the home of the Lowell Circle of thirteen members.—The Argonauts of INDIANA are keeping up their readings.—We want more such reports as this from a Chautauquan in WEST CHESTER, who writes, "I have succeeded in securing three more students," and gives the names of her recruits.—The celebration of Longfellow Day at HOMESTEAD, of which we spoke in the May issue, called forth some very appreciative words from the local press. A feature of the *personnel* of the circle was commented on, which, if not uncommon in our circles, is still of so much importance that we are always glad to call attention to examples of it. The report says: "One of the most interested members of the Chautauqua Circle in this place, is James Macdonald, who has passed his seventieth birthday. It was an inspiring sight to see him among these seekers after knowledge at the Longfellow entertainment. What an inspiration his example ought to be to young and middle-aged people! We believe the youngest member is fourteen years of age."—At ALLEGHENY the Wallace Bruce held a Longfellow celebration. A pleasant number on the program was contributed by the kindly gentleman from whom the circle takes its name. Mr. Bruce sent his



sonnet "Longfellow" and "An Island Fancy" as his share of the exercises.

**DISTRICT OF COLUMBIA.**—One of the many WASHINGTON Chautauqua groups is the Pansy. The work is regularly performed by the fourteen members. The programs in THE CHAUTAUQUAN are usually followed with such modifications as the executive committee deem advisable. The first meeting of each month is called "Program Night"; then all business is waved, and the evening devoted to intellectual and social enjoyment.

**FLORIDA.**—The Magnolia Circle of MARIANNA is one of the oldest circles of the state, its organization dating back to 1884. There are sixteen members enrolled in the Magnolia. The plans suggested in the magazine are adopted by the club when practicable.

**OHIO.**—A member from ALLIANCE writes of his circle:—"The Crescent Circle was formed in 1884 with six members; when the members were enrolled in 1885 we had fourteen; began this year with twenty-two. All who have begun the reading so far as known are still continuing or have good excuses for not doing so. We meet weekly and do not resort to any frivolous amusement to put in the time. We usually follow the plan in THE CHAUTAUQUAN.——Eleven members are in the HOMEWORTH Circle. This is the fourth year of their reading, and to the question, Do you expect to disband? They return an emphatic *never*.

**INDIANA.**—It will be remembered that the circle at SOUTH BEND celebrated Longfellow Day '85 in a very happy manner, but we think that it has won still greater credit in the elaborate entertainment it gave the present season. The guests and circle members were received at the hospitable home at which they gathered, by Mrs. Governor Winthrop, Miss Margaret Winthrop and Martha Washington. Prominent among the guests of the evening were Madame Pompadour, Mrs. Van Ness, Mary Chilton, Evangeline, Anne of Brittany, Queen Elizabeth, Queen Anne, Mrs. Wentworth, Elizabeth Fry, Polly Primrose, Pocahontas, Minnehaha, Priscilla, a Holland Maiden, Sir Walter Raleigh, Gabriel, Miles Standish, John Alden, Captain John Smith, and the Elder of Plymouth. At six o'clock the company sat down to a typical New England dinner of doughnuts and pippins, apple-butter and Dutch cheese. After a merry meal followed by toasts they listened to a program of Longfellow songs and readings, the effectiveness of which was heightened by being given in a veritable New England room. A cabinet containing ornaments and bits of ancient China, some of which were over a hundred years old, was on the wall. The fire-place was fitted with brass andirons of ancient pattern and across the front of the mantel hung "hanks" of bright colored yarn and strings of dried apples. The spinning-wheel was there, and the trusty rifle rested across the antlers of a deer.——NEW PALESTINE has four readers gathered into a circle.——At BLOOMINGTON twelve readers are supporting a circle.

**ILLINOIS.**—The Northern Illinois Chautauqua Union is a very loyal as well as wide-a-woke organization. It does its very best, both to promote the well-being of its members and to enlarge the borders of the C. L. S. C. One of its latest devices is a Chautauqua booth at the National Teacher's Association Convention to be held in Chicago June 1-3. A banquet is to be held immediately before the opening of the convention at which it is hoped to gather large numbers of the members of the Union. As many as possible of the Chautauquans will remain through the convention explaining the departments of the Chautauqua work and distributing literature. Every member of the Union ought to rise to this occasion, contributing time, enthusiasm, and money if

needed, to make the most of this really fine opportunity of introducing the Chautauqua Idea to people whom it would be of real advantage to enlist in the cause. Every one connected with Chautauqua will watch with interest the action of the Union in managing the Chautauqua booth.——The circle at LANARK numbers eighteen; it is on very friendly relations with the neighboring Chautauquans of Mt. Carroll. Programs are interchanged and occasional joint meetings are expected. The Lanarks were fortunate last summer to secure Helen Potter for a reading.——The Self-Helpers of OAK PARK have grown in numbers of late. They are following with fidelity the prescribed outline of study, occasionally treating themselves to a digression in the way of special exercises.——At WATERMAN a circle is in operation.——This is the kind of report post graduates do well to send in; it is from HENNEPIN: "Three of our circle of the Class of '86, is pursuing the Garnet course."——MACOMB reports a circle, unnamed as yet.——At MONMOUTH a zealous band is hard at work conquering astronomy, history, and literature, with Chautauquan perseverance.——A new method of disposing of current events comes from the Clover Leaf Club of HYDE PARK. It is original, practical, and thorough. Nine members are resolved into a news bureau and are expected to be ready to respond, whenever called upon, with the latest developments of the following subjects: Bulgaria, Labor, Ireland, Home Rule and England, Socialism and Anarchy, Political Relations and International Law, Synonyms and Purity of Speech, Criminal Law, Indian Question, Education, Music.——The Clover Leaf Club of Kenwood, CHICAGO, is composed of twenty active members. Most of the members are graduates of Eastern colleges and report themselves proud and glad to belong to the Chautauqua Circle.——Longfellow Day was the occasion taken by the Themis of ASTORIA for holding an open meeting. A large audience gathered to listen to the program the members had prepared and went away enthusiastic over the work the Themis is doing.

**KENTUCKY.**—A bright letter from HARDINSBURGH tells of the enthusiasm of the circle there and of the hopes the Pansies are cherishing of a happy Recognition Day.——The I. X. L. Circle of NEWPORT keeps up its list of thirty-one with commendable energy.——Loyal to those who honor their state, the circle at HOPKINSVILLE has chosen the name of Robert Burns Wilson, in recognition of the rising fame of that delightful poet and artist. The circle numbers fourteen, "very enthusiastic, and not deterred by wind or weather from their regular weekly meetings."

**MICHIGAN.**—LITTLE PRAIRIE RONDE Circle is in its fifth year. Good record.——From MILFORD the secretary writes, "Two years trial has proved the informal method of conducting our meetings so satisfactory that we began our third year in the same way. A member prepares two programs for the month and acts as president at each meeting. We find *The Question Table* very useful. We make the work general, paying much attention to the reading of the month."——The sixteen members in the Valley City Circle of GRAND RAPIDS have learned the pleasure in sustained talk on sensible subjects. The secretary writes, "We appoint some one a week ahead to question on the lesson. The class is not at all, bashful about answering questions, if able; in fact we have a good talk over each lesson, and find it very profitable."——At CHURCH'S CORNERS the Longfellow is prospering. The meetings are profitable, the readings enjoyed, and the members full of gratitude to the wise and kind man who devised the People's College.

**WISCONSIN.**—A fine circle flourishes at WAUPACA. The studies are thoroughly appreciated by these readers.

MINNESOTA.—A member of the circle at OWATONNA expresses well a kind of benefit many circles and readers experience from the C. L. S. C. She says, "Our class although small manifests a large degree of interest in the work, all find that the stimulus of the daily reading is just what they need to brighten the routine of home duties. Since taking up this course I have felt greater harmony with myself and find it a pleasant way of relieving life of its sameness."—REDWOOD FALLS Circle has applied itself to the course with marked diligence this year. At least an hour and a half is spent each week delving into the hard parts of the lesson. Nearly all of the suggested topics of THE CHAUTAUQUAN programs are taken up, and the questions are vigorously answered. Hard work, but it pays.—The Rosabelle is the pretty name a circle of about thirty members in ST. PAUL has chosen. It meets weekly and is succeeding admirably.—Membership in the North Star Circle of AUSTIN has increased this year from seven to twenty-one.

IOWA.—CEDAR RAPIDS numbers among its circles the Athene, of fifteen school-teachers. Happily they know the value of discussion and handle every topic of the course in free debate. Coe College is near by and the circle secured the services of the professor of astronomy for fortnightly talks in February and March. A "Lantern Lecture" was kindly introduced into the series by the professor. It is gratifying to know that the Chautauquans of Cedar Rapids have formed a Union, one aim of which is to give occasional lectures.—An excellent report comes from the RIVERSIDE Chautauquans. Most of the readers are conscientious and perform their duties carefully. The president conducts the opening exercises which consist of a Chautauqua song, the Lord's prayer repeated in concert, and roll-call responded to by verses from the Bible. The literary program is watched over by a critic. A general discussion of lesson subjects is held at each meeting.—The circle at WILTON JUNCTION has flourished in spite of Western cold and storms, and reports that at that writing (March 29) the books of the year are all read.—The Alpha of DES MOINES, organized in 1882, has a membership of twenty-one.—One of the pioneer circles of the country is that at INDIANOLA. It was formed in 1878 and reports itself this year as larger than ever. Twenty-four members are enrolled and a leader is appointed for each subject.—SIOUX CITY Circle is increasing.

DAKOTA.—One of the best reports to come from Dakota is that in Mr. Bishop's article on "The Black Hills" in the present issue of THE CHAUTAUQUAN.—From FLANDRAU the secretary writes that there is a circle of nine, all of whom have kept well up with the readings of the year. Four of the number read last year and were so pleased with the work that they persuaded others to join. They take up the readings on the school plan, the president questioning the members.

MISSOURI.—A model circle must be the Clio of NEVADA CITY, judging from their own candid story of the work done:—"Clio Circle was organized in regular form with the usual officers and with a constitution similar to the one given in THE CHAUTAUQUAN for February. We give most of our time and attention to the lesson review, but usually have a reading or an essay and always some music to vary the exercises. We appoint different leaders for the review and aim to give each member some special work, as often as once in three weeks. Our greatest energy has been given to the preparation of a lecture course, which has been most enjoyable. It is the first lecture course ever presented in this city and has already much improved and elevated public taste."

The writer adds that they mean this course to be only a beginning. This unselfish use of an organization as an instrument of public benefit is one of the highest to which a circle can aspire.—The *Missouri Statesman* of COLUMBIA is a good friend to Chautauqua. It believes in the work, and in commenting on the exercises of a circle in a neighboring city adds this quiet hint, "Is it not a little surprising that Columbia, here where we have so many literary people, cannot boast of a Chautauqua Circle?"

KANSAS.—Longfellow Day went off joyfully at VALLEY CENTER; a banquet followed by a program made up of songs and poems wholly from Longfellow, was the entertainment furnished. The circle at this point is in its third year and numbers fifteen.—From ELLSWORTH "no falling off in interest" is the report.

TEXAS.—We are sure of making a Chautauqua state of Texas if we only have a little patience. MARSHALL is the latest point to report, and there the circle is steadily increasing and the studies greatly enjoyed.

COLORADO.—The Addison of GOLDEN is doing finely. It has twelve regular members, all very enthusiastic. Never has a member failed to perform his part except for the best of reasons. The lessons are prepared in a manner that would delight the heart of the most exacting teacher. Discussion is free and exhaustive. In connection with the Jean Ingelow of Golden, the Addison has given two scientific lectures recently.—DURANGO made a delightful affair of its Longfellow celebration. The '86's united with the '90's in a banquet and literary performance.—The S. B. of GUNNISON has a constitution worth considering. It is not long, but "to the point."

ARTICLE I.—This circle is organized for work. Each member by signing these by-laws agrees to attend all meetings of the circle unless prevented by illness or other insurmountable obstacles and to do all work assigned by the president of the circle.

ARTICLE II.—The officers of the circle are president, vice-president, to be elected monthly, and secretary, treasurer, and critic elected for the year.

ARTICLE III.—The number of members of this circle is limited to fifteen.

ARTICLE IV.—Each member absent from a meeting of the circle shall be fined ten cents; each member tardy at such meeting shall be fined five cents.

ARTICLE V.—New members may be nominated at any meeting but they shall not be voted upon until the next meeting. Two votes against a proposed member shall constitute a failure to elect. Upon being voted in and signing these by-laws, the new member shall be considered a member of the circle.

CALIFORNIA.—The Chautauqua Idea prospers famously on the Pacific slope. More enthusiastic reports have never come to us than those of the present month. The secretary at COLFAX writes: "Our circle is a grand success. Numerous literary societies have been organized here but failed to accomplish anything. The circle is constantly growing in membership and much enthusiasm is demonstrated. The weekly meetings are largely attended, visitors invariably being present. We are about to open a public reading room. Two hundred fifty books have been contributed, a fund raised, a hall and furniture procured, and a committee appointed to make necessary arrangements. We hold our meetings at the members' houses because it is pleasanter and more informal; but if the membership roll increases in the ratio that it has in the past month, we shall hold our meetings in the reading room. We are all pleased with the text-books and magazine."—The Central Circle of SAN FRANCISCO is enjoying a course of short and very interesting astronomical lectures. Charts of various interesting objects have been used by the circle with good results.



—The Eureka Circle of NAPA is increasing in members. —A prosperous class, the Appley, is reported from WILLIAMS. —The Vincent of RIVERSIDE held a pleasant Longfellow memorial. —CEDARVILLE must be a very paradise for the geologist. Evidently the Chautauquans of that vicinity think so. A correspondent from the Browning Circle says, "We are located on the Warner spur of the Sierra Nevadas, nearly two hundred miles from any railroad, and in a country that twenty years ago was the home of the fierce Modoc, Pitt River, and other Indians. Geologically there is scarcely to be found in the whole world a more interesting region. The gigantic Sierras are our daily companions, hot springs bubble up in constant sight, the great lava beds are only a day's drive away, and another day's drive places us on Mt. Shasta, the hoary-headed king of the Pacific coast, where glaciers and boulders can be seen without end. A few miles away is the placer mining region where vast beds of travertine and tufa formations are to be found. Here are the "pyramids" of Pyramid Lake; a desert covered with obsidian, millions of petrefactions, minerals of every description, and so many other things that I have not time even to enumerate them." —The Explorers of EL CAJON are thirteen, and comprise teachers, ex-teachers, health-seekers, farmers, and fruit-raisers from many parts of the United States and Canada. A member of '89 went there taking his books and expecting to study alone, but found these fellow-students. The circle meets fortnightly, and follows the programs of THE CHAUTAUQUAN.

## NEW CIRCLES.

CANADA.—The St. Gabriel of MONTREAL meets weekly to discuss the week's work, and to clear up any difficulty which has been met with in studying. Much pleasure and profit have been gained by the members during the short period of this circle's existence, and they are anxious to lengthen the membership list. —At BRANTFORD five form a new circle that is doing good work. —St. ANN'S Circle begins with ten members. —The Aileen Circle of TORONTO is hard at work and succeeding, not only in keeping up its own interest, but in interesting others. —In HALIFAX, a graduate of '86 has formed a circle from his Bibleclass. The circle name is the Aggressives. Its members are eight young men all of whom are earnestly and enthusiastically studying the lessons. It is hardly needful to add that the teacher is studying with them, to encourage them by his presence at the meetings.

MAINE.—The Quinebassett Circle of NORRIDGEWOCK, has Sophie May, the well-known writer for children, among its members. There are thirty-one names on the roll and the average attendance is large. Five of the members come several miles to attend the meetings which are held once in two weeks. —Members of the circle at DANVILLE JUNCTION have been quietly working for two years without any organization, but being encouraged by reports of even smaller circles, have now organized with a membership of four. —WATERVILLE has a circle of fifteen. The programs used are sometimes varied from those given in THE CHAUTAUQUAN, and much profit is obtained from *The Question Table*. All Memorial Days are appropriately observed. —The circle at WEST PEMBROKE takes the name of Sunflower, "because it follows the shining light of the studies."

VERMONT.—In the GEORGIA Circle all the books have been thoroughly studied and are now being taken up for a final review. At a recent meeting a discussion took place as to the relative importance of the studies of geology and astronomy. It proved very interesting, and many points in favor of each were developed. The circle voted on the

question and by a small majority decided in favor of geology.

MASSACHUSETTS.—A class of thirty meets weekly in LONG MEADOW. One member writes that it is forty years since she left school, and she appreciates the privilege now granted of reviewing her studies.

CONNECTICUT.—Twelve form the circle at NORTH HAVEN. As the members were late in beginning work, but are anxious to graduate in '90, they have decided to study through the summer vacation.

NEW YORK.—ROCHESTER reports another new circle, the Polenagnian, beginning with twenty members, and intending to study through the summer to make up for lost time.

—WATERTOWN has a flourishing circle. —A member of '87 who moved to OLD CHATHAM last fall found but one Chautauquan there; now a circle of seventeen meets weekly, and shows great interest. —The MOOERS Circle begins with eight students, NEW BERLIN with sixteen. —LYSANDER has a circle of twenty-five which meets weekly. Three instructors are elected for three months and so far have performed their onerous duties well. —ROUND LAKE reports a new circle.

NEW JERSEY.—In the Mayflower Circle of MANASQUAN, the plan of work is to distribute questions to each member, the answer to be given without consulting the text-books. Essays and informal talks vary the exercises. —Of the seven members of Humboldt Circle, NEWARK, six are drug clerks. They have text-books to study on pharmacy, chemistry, botany, and materia medica, and little leisure time is left them; but in that time the C. L. S. C. course is taken up with a zeal that ought to put to shame the people who plead that they are too busy to give any time to self-culture.

PENNSYLVANIA.—The Leal Circle of LINESVILLE, has for its motto, "The end crowns the work." No member yet has been absent from one of the weekly meetings. —Ten form the circle at EMLENTON most of whom have been faithful in this first year's work. —The circle at GERVILLE is increasing in numbers and interest. —BETHLEHEM has a circle of six. —In DERRY STATION Circle of seventeen members no one ever refuses to perform whatever part is assigned. News of the week, and the question-box form parts of every program. Prospects are bright for a larger circle next year. —In the Emersonian Circle at REMINGTON the readings are reviewed by answering questions selected by the president. Experiments, essays, etc., vary the program. At a recent meeting the game of crambo was found a pleasant diversion.

VIRGINIA.—Members of the SUFFOLK Circle are all actively engaged through the day, but are glad to devote their evenings to study, and wish also to continue the work through the summer. —The FALLS CHURCH C. L. S. C. has twelve members, all belonging to the Class of '90.

NORTH CAROLINA.—The secretary of BREVARD Circle writes: "Our circle is small, but we aim to make it a success and to follow our motto 'Redeeming the time.'"

SOUTH CAROLINA.—ANDERSON and BEAUFORT report interested circles.

ALABAMA.—PEROTÉ has the first circle in that part of the state.

MISSISSIPPI.—On SHIP ISLAND, in the Gulf of Mexico, may be found a circle of three members, father, mother, and daughter. The gentleman is a physician and has charge of the United States Quarantine Station situated there. A fort and lighthouse are the only other buildings on the island.

TEXAS.—CAMERON and CORSICANA are added to the Texas circles.



OHIO.—Ten ladies of COVINGTON organized in February a circle for the class of '90, and, like many others late in beginning work, but anxious to graduate with the Pierians, have decided to study during the vacation months. Cary Circle, GREENFIELD, is composed of ladies all of whom belong to the Class of '90. Nine names are sent for a new circle in JACKSON. A letter from WYOMING says: "Our meetings are so delightful we are not willing to adjourn even at 11:30 p. m. We do not deviate from the regular work, and everybody takes part. We would not give up our 'Chautauqua orders' for a great deal."

ILLINOIS.—Sixteen ladies form the circle at CARROLLTON. The circle of ladies in DEKALB evinces much energy and earnestness.

TENNESSEE.—Members of the Richland Circle of WALES, meet weekly, and express themselves much pleased with the readings.

KENTUCKY.—The twenty-nine members of DANVILLE Circle are earnestly working to do the study of nine months in four months' time, and are sure they will succeed.

MICHIGAN.—New circles are reported at FLINT, MARYSVILLE, NORTHVILLE, CHEBOYGAN, HOWELL, GRAND HAVEN, MUNITH, SPRINGPORT, and the Bickford Segments at PONTIAC.

WISCONSIN.—POYNETTE Circle began with thirteen members and prospect of several more. Much interest is manifested. MAZO MANIE, and CUMBERLAND send new names.

MINNESOTA.—St. Anthony Falls Circle and Hope Circle are added to the list in MINNEAPOLIS. Members at CANBY are doing good work. Seven form the Sunflower

Circle of WARSAW. Its motto is "High and lofty thoughts."

MISSOURI.—A new circle in ST. LOUIS has taken the name of the St. John's C. L. S. C. It has a growing membership and finds the work pleasant.

ARKANSAS.—An encouraging report of regular attendance and increasing membership comes from BATESVILLE.

IOWA.—Two faithful students at ST. ANSGAR are taking all the required reading, and even observe Memorial Days with special programs. MONTEZUMA has also a circle of two. Seven form the S. H. M. Byers of GRAND JUNCTION. At AURELIA a circle of thirteen was recently organized.

COLORADO.—A member of '89 in COMO has been the means of forming a circle in that place. The RYE C. L. S. C. has been struggling against some discouragements but is in good working order again.

DAKOTA.—A circle of nine has been formed in CARTHAGE.

NEBRASKA.—A circle is forming at POTTER. The Dickens Circle of SUPERIOR meets weekly, and carries out the programs of THE CHAUTAUQUAN.

NEVADA.—Report has reached us of a circle at AUSTIN.

WYOMING.—CHEYENNE has a class of twenty-eight that are doing earnest work. From EVANSTON comes the message, "Our circle is small but pleasant. We have met regularly throughout the Chautauqua year, and have had very interesting and instructive meetings."

OREGON.—A new circle is reported from HALSEY.

CALIFORNIA.—The graduates of SACRAMENTO have organized an alumni association for the purpose of keeping alive their zeal for study, and of perpetuating the friendly relations formed during their four years' work.

## THE C. L. S. C. CLASSES.

### THE UNION CLASS BUILDING.

The Reverend R. H. Bosworth, of Newburgh, N. Y., the treasurer of the fund for the Union Class Building, received, during April, the following amounts:—Class of '85, 50 cents; Class of '86, \$23.00; Class of '87, \$4.00; Class of '88, \$5.00; Class of '89, \$7.00; Class of '90, \$11.00; Class not given, 25 cents. Total for month, \$50.75.

Members of the different classes who visit Chautauqua have felt the need of some place of rendezvous where classmates could meet and get acquainted. The Class Building will supply that want. It will also be the depository for the archives of the classes, a rallying point for the development of a class spirit, and a goal of pilgrimage for years to come. Each class needs a local habitation as well as a name, if it is to be perpetuated even as a delightful memory. Many feel very grateful to Alma Mater for benefits received, and what better way to express this than in adding to the beauty and the conveniences of Chautauqua. About \$500.00 have already been subscribed, desirable lots have been donated by the corporation, and plans have been drawn for a fine structure. Contributions may be sent to the Reverend R. H. Bosworth, Newburgh, N. Y., or to the class treasurers.

### CLASS OF 1887.—"THE PANSIES."

"Neglect not the gift that is in thee."

#### OFFICERS.

President—The Rev. Frank Russell, Oswego, N. Y.  
Western Secretary—K. A. Burnell, Esq., 150 Madison Street, Chicago, Ill.  
Eastern Secretary—J. A. Steven, M. D., 98 High Street, Hartford, Conn.  
Treasurer—Mrs. Julia N. Berry, Titusville, Pa.  
Executive Committee—The officers of the Class.

By the time this number of THE CHAUTAUQUAN is issued,

the final communications for this year, to all C. L. S. C. students, will have gone out from the Central Office and in addition to the *Alma Mater* a "Report Blank" and "Final Address to the Class of 1887" will have been sent to each member of the graduating class. Any student of '87 who fails to receive all the papers above referred to, should at once notify the Plainfield Office, as these communications are of great importance.

A small fee in the future will be charged each student, to cover the expenses of graduation. This amount will be twenty-five cents for an imitation or seventy-five cents for a genuine parchment diploma. Further explanation of this subject will be found in the "Principal's Address" in the *Alma Mater* and in the "Final Address to the Class of 1887."

All C. L. S. C. students will read with pleasure the letter from Chancellor Vincent which is published in the April number of our *Alma Mater*. We hope before many weeks have passed to greet him again on American soil.

The inherent perseverance of the Pansy Class is illustrated by the following report: "I had decided to drop the course, as I thought I could not finish even by October, but when I received 'the reminder' it spurred me on to one more trial."

Another writes: "The books of the C. L. S. C. have been loved companions to me. They have cheered me in loneliness, comforted me in sorrow, and made deeper my joy. I believe such a course of reading increases the self-respect and confidence essential to success in life."

The competitive examination for the prizes offered to members of '87 who are present at Chautauqua, will be held on Monday, August 15, at 9 a. m.

The plans for the Chautauqua Summer School for 1887 are rapidly maturing. A large corps of teachers has been engaged, new buildings are to be erected, and unusual facilities for study in every department will be offered. We are anxious to see the Class of '87 well represented among the students of this famous school, and urge our classmates to bear this fact in mind, in making their summer arrangements. Do not plan for Recognition Day only, or for the three weeks of the Assembly, but let your sojourn at Chautauqua cover the entire session if possible.

#### CLASS OF 1888.—"THE PLYMOUTH ROCK."

*"Let us be seen by our deeds."*

##### OFFICERS.

*President*—The Rev. A. E. Dunning, Boston, Mass.  
*Vice-Presidents*—Prof. W. N. Ellis, Brooklyn, N. Y.; the Rev. Wm. G. Roberts, Bellevue, Ohio; Mrs. D. A. Cunningham, Wheeling, West Virginia; Mr. N. Y. Tacksbury, Toronto, Canada; S. T. Neill, Esq., Warren, Penna.; Mrs. E. Clarke, Jr., New York City; Mrs. Lillian H. Norton, Charlottesville, Va.; Mrs. E. P. Hull, Macon, Ga.; Mrs. D. A. Dodge, Adrian, Mich.  
*Secretary*—L. Kidder, Connelville, Pa.  
*Treasurer*—The Rev. L. A. Stevens, Tonawanda, N. Y.

Items for the '88 column should be sent to the Rev. C. C. McLean, St. Augustine, Fla.

Words of cheer come from the members of '88. "I am decidedly in the rear with my reading but hope to come out with the Class of 1888." "I have been almost compelled to give up the course for this year, but finding myself in possession of a few weeks I am going to try to make up for lost time." "I am a member of the Class of '88, but being away attending medical college, could not keep up my readings. I shall, however, make up my course during vacation."—Such words as these give promise of an excellent record for '88 next year, provided every student shows the same cheerful determination to succeed. Let us hear from others.

An enthusiastic student from the state of New York, who has been absent in California for ten months, writes that neglect in sending her fee was due to absence "and not because I had become discouraged although I frequently came very near being so. My health failed, consequently I was obliged to drop the studies almost entirely and have fallen far behind but hope to catch up this summer if possible. I spent one week at Pacific Grove while at Monterey last summer, that in part compensated for the treat I missed—a few weeks' stay at Chautauqua.

A friend of the C. L. S. C. writes, "I would like to add one more story to the history of the good accomplished by the C. L. S. C. A young girl in our Philadelphia church began reading three years ago, and next year will come to Chautauqua for her diploma. She is one of five children whom a widowed mother has raised through her own handwork, keeping the family together, and giving them each a few years in the public schools. This girl became a clerk in a store, and afterward cashier. Since taking up the course of reading, she has developed rapidly, her mind opening to many new channels of knowledge. Last year when a new trust company was organized in the city, with large capital and taking a leading place in the business of the city, this girl was made cashier and fills her position admirably. We attribute it solely to the influence of the C. L. S. C. which led her to see what she could accomplish."

#### CLASS OF 1889.—"THE ARGONAUTS."

*"Knowledge unused for the good of others is more vain than unused gold."*

##### OFFICERS.

*President*—The Rev. C. C. Creagan, D.D., Syracuse, N. Y.  
*Vice-Presidents*—The Rev. S. Mills Day, Honeoye, N. Y.  
 The Rev. J. H. McKee, Little Valley, N. Y.  
 The Rev. J. B. Steele, Jackson, Tenn.  
 Miss Genevieve M. Walton, Ypsilanti, Michigan.  
 Mrs. Jennie M. Haws, Mendota, Ill.  
*Recording Secretary*—Mrs. E. N. Lockwood, Ripon, Wis.  
*Corresponding Secretary*—The Rev. H. C. Jennings, Faribault, Minn.  
*Treasurer*—The Rev. R. H. Bosworth, Newburgh, N. Y.

Items for this column should be sent to the recording secretary, Rev. H. C. Jennings, Faribault, Minn.

A lone reader in Massachusetts writes, "I enjoy the readings very much and hope I shall be able to continue, though I am somewhat behind, for I have been away nearly all winter and had to neglect my reading, but I have almost caught up and mean to give it more attention in future."

#### CLASS OF 1890.—"THE PIERIANS."

*"Redeeming the Time."*

##### OFFICERS.

*President*—The Rev. D. A. McClenahan, Allegheny, Pa.  
*Secretary*—George H. Iott, Evanston, Ill.  
*Treasurer*—Mrs. E. P. Wood, 252 General Taylor street, New Orleans, La.  
*Vice-Presidents*—John Lee Draper, Providence, R. I.; the Rev. Leroy Stevens, Mount Pleasant, Pa.; Charles E. Weller, St. Louis, Mo.; Mrs. Dr. Edwards, Randolph, N. Y.; Miss Anna L. Sanderson, Toronto, Canada.  
*Building Committee*—Chairman, the Rev. H. B. Waterman, Griggsville, Ill.; Secretary, John R. Tyley, Chicago, Ill., with Miss Leonard, Mr. Davidson, the Rev. J. Hill, and Dr. J. T. Edwards, Randolph, N. Y.

Items for this column should be sent to Geo. H. Iott, Evanston, Ill.

A letter from a missionary in Hakodate, Japan, received within the past month, reports the existence of two members of '90 in that foreign community. This gentleman writes, "The C. L. S. C. is just what I need that I may not rust in this land where so much of one's time and strength goes to the study and use of the Japanese language."

Eight more students from Great Britain have been added to the Class of '90 within the past few weeks, and letters lately received express the pleasure which these foreign Pierians are already finding in their work. A Wesleyan minister writes, "I have received a ticket of membership of the C. L. S. C. for which I am obliged. It is a pleasure for me to associate with this world-wide educational and social movement of the United States. I enclose request for Garnet Seal Memoranda." From a "United Presbyterian Manse" comes the following: "I believe the Chautauqua movement has a great future before it in this bonnie Scotland of ours. We look forward eagerly to the arrival of THE CHAUTAUQUAN and enjoy its perusal very much. Not the least interesting parts of the magazine are those which tell of how Chautauqua wins its way into new fields and other lands."

#### POST GRADUATE CLASSES.

When the Pioneers graduated, more than four years ago, an arrangement was made by which all regular papers for the next four years were to be sent them upon the payment of one dollar. This arrangement ceased last year, and although we understand that a number of '82's have paid the annual fifty cent fee for the current year, we feel that others who would be equally glad to receive all papers have forgotten this fact. In proportion to its membership '82 has thus far done better with seals than any other class. We must not allow '86 to wrest from us our hard won prize.

The Shakspeare Seal course has already many students, and we are glad to learn that the memoranda for that course is now in the hands of the printer and will soon be ready to puzzle and sharpen the wits of Shakspeare students. The Professor of English in the Chautauqua College of Liberal Arts has furnished a series of most valuable "Suggestions on the Study of Shakspeare" which will form a part of the memoranda.

The number of C. L. S. C. students who are pursuing special courses this year is very nearly double that of any previous year. '82, '85, and '86 have made a considerable advance over last year, while '83 and '84 have fallen off very slightly. We are glad to note that all of the undergraduate

classes are well represented, as it is a hopeful sign for the future career of the S. H. G.

Arrangements have been made for special seals for the different orders of the Society of the Hall in the Grove, namely the Order of the White Seal, League of the Round Table, and Guild of the Seven Seals. Each seal is nearly an inch in diameter and bears the monogram of its order surrounded by a wreath. The seals will be placed at the base of the diploma upon the engraved monograms which now represent the different orders. We hear rumors of special recognition at Chautauqua in future years, of graduates who have attained to membership in the higher orders of the C. L. S. C.

## ORDER OF C. L. S. C. STUDIES FOR 1887-'88.

We print below the outline of the course of study for 1887-'88. A glance will disclose the plan of the work. It will be noticed that in the books attention is given to history, literature, science, and religion, while THE CHAUTAUQUAN adds to its studies on these lines several on practical themes, including a series on economic questions and one on the leading industries of America. It is believed that these latter will be of unusual interest. The magazine will also include in its Required Readings helpful papers on manners, conduct, and hygiene. For all the readings the very best talent has been employed. The course for 1887-'88 will be broad in its scope, thorough in treatment, and of great practical interest.

*October.*

Hale's American History.

In THE CHAUTAUQUAN:

- "American Industries—Flour Making."
- "Questions of Public Interest."
- "Current Literature—American."
- "History and Literature of the Far East."
- "Homes of American Authors."
- "Great Events of the Middle Ages."
- "Hygiene."
- "Sunday Readings."

*November.*

Hale's American History.

Beers' American Literature.

In THE CHAUTAUQUAN:

- "American Industries—Salt Manufacture."
- "Questions of Public Interest."
- "Current Literature—American."
- "History and Literature of the Far East."
- "Homes of American Authors."
- "Great Events of the Middle Ages."
- "Hygiene."
- "Sunday Readings."

*December.*

Hale's American History.

Beers' American Literature.

Hatfield's Physiology.

In THE CHAUTAUQUAN:

- "American Industries—Electric Lighting."
- "Questions of Public Interest."
- "Current Literature—English."
- "History and Literature of the Far East."
- "Homes of American Authors."
- "Great Events of the Middle Ages."
- "Hygiene."
- "Sunday Readings."

*January.*

Hale's American History.

Beers' American Literature.

Hatfield's Physiology.

In THE CHAUTAUQUAN:

- "American Industries—Pottery."
- "Questions of Public Interest."
- "Current Literature—English."
- "History and Literature of the Far East."
- "Homes of American Authors."
- "Great Events of the Middle Ages."
- "Hygiene."
- "Sunday Readings."

*February.*

Readings from Washington Irving.

Hatfield's Physiology.

Plan of Salvation.

In THE CHAUTAUQUAN:

- "American Industries—Oil Producing and Refining."
- "Questions of Public Interest."
- "Current Literature—Scandinavian."
- "History and Literature of the Far East."
- "Homes of American Authors."
- "Botany."
- "Out-of-Door Sports."
- "Sunday Readings."

*March.*

German Literature.

Plan of Salvation.

In THE CHAUTAUQUAN:

- "American Industries—Glass Making."
- "Questions of Public Interest."
- "Current Literature—Scandinavian."
- "History and Literature of the Far East."
- "Homes of American Authors."

"Botany."

"Out-of-Door Sports."

"Life and Manners."

"Sunday Readings."

*April.*

German Literature.

History of the Mediæval Church.

In THE CHAUTAUQUAN:

- "American Industries—Ship-Yards."
- "Questions of Public Interest."
- "Current Literature—French."
- "History and Literature of the Far East."
- "Botany."
- "Out-of-Door Sports."
- "Life and Manners."
- "Sunday Readings."

*May.*

German Literature.

In THE CHAUTAUQUAN:

- "American Industries—Car Works."
- "Questions of Public Interest."
- "Current Literature—Russian."
- "History and Literature of the Far East."
- "Botany."
- "Out-of-Door Sports."
- "Life and Manners."
- "Sunday Readings."

*June.*

In THE CHAUTAUQUAN:

- "American Industries—Cloth Factories."
- "Questions of Public Interest."
- "Current Literature—Italian."
- "History and Literature of the Far East."
- "Botany."
- "Out-of-Door Sports."
- "Life and Manners."
- "Sunday Readings."



## EDITOR'S OUTLOOK.

### SALUTATORY TO THE CLASS OF 1887.

To the stranger visiting Chautauqua on Recognition Day the meetings, the processions, music, and oratory seem to make a pretty holiday. To those of us who know all that Chautauqua means, Recognition Day stands for the crowning of years of earnest effort, for the beginning of a wider life, for a clearer insight into the ways and works of God, a broader sympathy with all that is best in literature, science, art, and humanity. The summer breeze again blows freely through the white Hall among the trees, the lake again sparkles in the sun, and once more the Gate stands open, and children scatter flowers as the long procession climbs the hill. It is no idle holiday. It means so much that, perhaps, the eyes are misty even while the lips smile, to see so many friends and fellow-laborers meet for the first time—yet known by sympathy so many years. The Day marks the end of four years of earnest study in homes so wide apart that the sun is always lighting the pages of some Chautauqua book. Here ends for thousands a course of reading that has made life worth living. They had no chance to lay hands on the education that colleges and universities afford, till our Alma Mater came to their own homes, a universal mother dearer than any, because not dwelling apart in some classic grove, but a friend at home by every fireside. Recognition Day stands for completed studies, for knowledge gained, for new and wider views of life and work, for the reward of faithful work and friendly recognition and welcome to the great company of Chautauquans around the world.

What next? The diploma marks the end of four years' reading and study. Is it all? Is it the end? Do we here rest content? If it were all, if we are to stop and close the familiar books and think no more of Chautauqua, the Day is after all, not much more than a pretty holiday. It is only a little hill we have climbed with some effort and we now turn back to look, with pride, perhaps, over the path by which we reached this height. It is well to look back. It is better to look forward. The backward glance shows the paths through history, through literature, science, religion, and art, along which we came. They were pleasant paths, and for guides we had the best minds that, through books, have made these paths familiar to students everywhere. To come thus far and stop is a confession that we are like foolish huntsmen who care more for the fox than the chase. To be recognized as students of Chautauqua, to be enrolled as graduates of our great Circle, and to do no more is to be unworthy of our Alma Mater.

The path that lies behind leads but to higher paths before. In Recognition Day we climbed the foot-hills to find the sierras are higher still. The diploma is chiefly valuable as a thing on which to place the seals that mark still greater progress. Having become, by four years' practice, trained learners we go on to learn. Having learned to observe let us observe the more. Our Alma Mater has wisely prepared post graduate courses of reading. We must now, in one sense, be our own teachers and guides and select from these courses such ranges of reading as will best fit our needs, best meet the aspirations of our hearts.

Are we drawn by that divine beauty and truth that speaks through art? Here are books that give us the best thoughts of artists and critics. Have the wonders of the heavens that we have studied this past year, widened our out-look into the universe so that we wish to see and know more? Here is a course in astronomy that will help us. Have we found that the stones can preach to us of the wonders of creation? Here are special books that will open wider the leaves of the great stone picture book. Has literature excited the imagination and inspired a wish to learn more of the thoughts of great minds? Do mis-

sions, temperance, church work, the Bible, and religion command our attention and urge us to know more that we may work wisely? Here are books to help along the right way. Have we any wish to go forward in science, art, the study of men and things? These seal courses are before us, wide paths in which to walk upward and onward. Recognition Day means all this to us. It marks the first four miles along the way of knowledge. Let no Chautauquan sit by the road content to stop at a diploma. Let every one look forward and not backward, look up and not down, and lend a hand to others along the path that leads to higher knowledge, a wider and fairer life.

### INDUSTRIAL EFFECT OF MANY HOLIDAYS.

There are certain questions which are easy enough to ask, but very difficult to answer, and the one suggested by the above caption belongs properly to this class. The industrial effect of many holidays depends entirely upon the manner in which they are used by the people. At first thought one might say that an interruption of work must necessarily decrease the total product of the country, and on that account be detrimental; but such a conclusion rests upon a very erroneous conception of the nature of man, as well as upon a wrong idea of the conditions necessary for continued and intense industry. Product does not hold any definite relation to time consumed in work. There are other elements in efficiency equally as important, and among them may be mentioned a rational contentment among those who work, as well as both mental and bodily freshness, combined with cheerfulness and hope. Life must be worth the living if industry is to show the movements of living men.

It is easy to say that such a thought is fanciful; and it would be impossible to point, in refutation to such a reply, to any series of experiments with holidays for the purpose of noting their effect upon the spirit and character of the working class; yet experiments bearing indirectly upon this question have been made. In Massachusetts, for example, the experience of those who employ laborers in the textile industries is, that, after a couple of months, overtime work does not pay. And it is claimed by many employers in cotton mills, that they accomplish as much working ten hours per day, as when they were accustomed to work eleven or twelve hours. It was found that men working on shorter time would cheerfully submit to stricter discipline, and willingly spend their energies and strength with greater freedom. Any measures leading to contentment and hopefulness must give parallel results. We may then say, with regard to holidays, that, if proper amusements are afforded, and if they can be entered into with a spirit which shall crush class jealousies, the country will reap the decided advantage of more efficient industry as well as of a more healthful and happy tone among the people.

So far the matter is not difficult to understand; but in connection with this topic there is suggested one of the most intricate of economic problems. When we consider the marked advance in labor-saving machinery, it certainly seems that the energy brought under the control of man should be made subservient to the rational ends of social existence, instead of being diverted to the ministry of luxury. It is estimated, for example, that it would take a population of 227,500,000 to carry on, by hand-work and horse-power, the mechanical industries now carried on by a population of 55,000,000, with the assistance of steam. A common laborer, working in the coal mines of Pennsylvania, gains for society in a single day available energy equal to 4,000,000, or 5,000,000 of foot-pounds. Certainly if the tireless forces of nature are thus willing to take upon themselves the yoke of service, men should have leisure to enjoy so beneficent

a gift. And it is true that some men do have leisure, yet it is not a leisure joined with contentment or with the ability to take rational pleasure. There are in the United States a sufficient number of men in enforced idleness to give the workers thirty holidays a year, could the idlers be employed. No statement could present a more severe criticism upon modern society than this. This fringe of idlers hangs like a dead weight about the neck of society. From their numbers are our prisons filled, and their presence is a constant menace to the payment of adequate wages to those who work. It is their presence, also, which permits the spasmodic extension of industries sure to be followed by a commercial crash or a depression in trade. In some manner they must be absorbed into the ordinary activity of society, or society will forever be afflicted with the "industrial fever and ague." Of course the establishment of holidays is not adequate to such a task, but holidays might be made to fit into a general scheme for the amelioration of society. As Professor Jevons truly says, "If the citadel of poverty and ignorance and vice is to be taken at all, it must be besieged from every point of the compass—from below, from above, from within; and no kind of arm must be neglected which will tend to secure the ultimate victory of morality and culture."

#### RECENT WAR LITERATURE.

How rapidly is the epoch of the great Civil War receding from us with the flight of time! Those who participated in its stirring scenes can hardly realize the greatness of the interval which separates the nation of to-day from that of the war period. The most of the great leaders whom the emergency created are already numbered with the dead. The citizen who is now thirty-five or forty years old was at the breaking out of the war a boy, too young to know what it all meant, but old enough to share in the thrills of excitement which shot through the country as the exciting events of the great struggle followed one another in rapid succession. Of the great debate which preceded the rupture he has little or no personal recollection. The country has now thousands upon thousands of voters who were born after the surrender at Appomatox. For these even the period of reconstruction is a faint reminiscence. With truth it may be said that the typical citizen of to-day is a man for whom the great Civil War is simply history; he knows it as he hears it described by old soldiers or as he reads of it in books, but those for whom it was a personal experience indelibly burned into the life of the individual are no longer the rule but have become the exception.

But while time is doing its inevitable work upon the actors and passions of the war period, there is no diminution of interest in the war itself as the most momentous crisis in the nation's life. For, as time passes, we are becoming more and more vividly conscious of the mighty significance of the war in our national history. We can see, even better than the actors in the drama themselves could see, the full majesty of the work which the Redeemer of the nations chose to perform through the agency of clashing armies. For them the larger outlook was more or less hidden by the smoke of battle. The war was a struggle for the preservation of the Union. Later it became a struggle concerning the continued existence of slavery. But we can now see that the war meant not so much the formal preservation of the Union that had been, as rather the creation of a new and better Union than had existed or could have existed before. And we can see, too, through all the misery entailed on the Southern States by the war, that the destruction of slavery meant, not humiliation and disaster to the South, but a grand redemption from its own evil genius. This insight is rapidly diffusing itself throughout the whole domain of the nation and nowhere more rapidly than in the Southern States. The glowing and patriotic descriptions of the New South which appear in print from time to time are among the most cheering signs of the present epoch.

It is not surprising, then, considering the greatness of the is-

suues which the war decided, that literature pertaining to it should be eagerly welcomed by the people. Of quite especial interest are the personal memoirs of the great leaders who conducted the armies in the field. Those of General Sherman have been before the public several years. Later came those of Grant (from one point of view we may bless the accident and the painful misfortunes which led the illustrious soldier to pen this simple, frank, and straightforward narrative); while still more recently we have the recollections of McClellan and Logan. When we add to these the memoirs of other less conspicuous leaders, and take into account the numerous histories of particular campaigns, the "recollections of privates," and the vast amount of miscellaneous war literature which is continually pouring from the press, it would seem as if the people must soon be provided with the means of judging fairly the controversies that have arisen in connection with the conduct of the war. That judgments will long continue to differ greatly with regard to important matters, with regard to leaders, and armies, and campaigns, is, of course, to be expected. A perfectly authentic history of the war acceptable as such to all parties North and South, is out of the question. At the best it is only a possibility of the remote future.

#### THE MENTAL AND MORAL HEALTH OF FARMERS.

The poets have always taught us to believe that nothing is more health-giving than "the scent of new-turned mold"; but now comes along the dry-as-dust statistician and intimates that this is all a mistake, and that the essential unhealthfulness of the farmer's occupation is indicated by the fact that those who till the soil (including in this class farmers' wives and daughters) furnish the insane asylums of the land with the greater part of their patients. Add to this the idea (which, however, has obtained less currency) that farmers are more apt than other people to be violators of law, and we have two indictments against rural life so serious in their import as to call for a careful examination.

Statistics gathered from various parts of the Union establish beyond doubt the fact that almost everywhere the number of farmers in state insane asylums is exceeded only by the number of "day-laborers"—a class which doubtless includes many who labor upon farms. In private asylums, the patronage of which is for the most part derived from the wealthier classes, few farmers are to be found. If, however, all those who are engaged in mechanical pursuits of various kinds were to be brought together into one class, they would be found to furnish about as many, perhaps quite as many, patients to the asylum for the insane as do the tillers of the soil.

When we speak of farmers, we must not lose sight of their wives and daughters, who share with them, even more fully than in proportion to their strength, the most exhausting labors. The records of hospitals for the insane show that the women of the farmer's family are almost as liable to the loss of reason as the farmer himself.

But while the hospital reports taken by themselves seem to present so gloomy a picture of the mental health of those devoted to the pursuit of agriculture, this unfavorable impression altogether disappears when we come to observe that the ratio of the agricultural class to all those of other occupations taken together is much greater than the ratio of insane farmers to the whole number of the insane. In other words, farmers constitute a considerably larger proportion of the community at large than they do of that class of unfortunates whose mental vision has been darkened. One's chances of becoming insane are not, therefore, increased by his making agriculture the business of his life.

For the belief that farmers furnish more than their due proportion to the criminal classes, there is even less foundation. The farmer class of Pennsylvania contains about twenty per cent of all those having occupations: therefore, if farmers are as law-abiding as other people, and neither more nor less so, they may

be expected to furnish about twenty per cent of the criminals consigned to penal institutions. Limiting our inquiries to six of the last ten years we gather from official sources the following facts: the farmers sentenced to the penitentiaries of the state were in 1877 a little over two and one-half per cent of the whole number thus sentenced; in 1879 six per cent; in 1881 a little over one per cent; in 1882 less than one-half of one per cent; in 1884 not one individual out of 733; in 1885 one individual out of 840—about one-tenth of one per cent. Thus it appears that in Pennsylvania, at least, farmers are seldom guilty of great crimes.

It is also of interest to note that the number of farmer convicts is growing steadily less. That this is partly due to our increasing distance from that period of moral corruption—the long

years of the war of secession—is not unlikely. An additional item of evidence pointing in this direction is the fact that of those consigned to the Michigan state prison in 1874, somewhat nearer the close of the war, a little more than thirteen per cent were farmers. Yet even thus the farmers of Michigan, being forty-two per cent of the workers of the state, were convicted of only a third as many state-prison offenses as they might have been guilty of without being worse than other people.

In conclusion we may cite the personal testimony of one of the leading criminal lawyers of western Pennsylvania, who gives us most emphatic assurance, based upon his own wide experience, that great crimes are very rare among the agricultural classes.

## EDITOR'S NOTE-BOOK.

The editor of *THE CHAUTAUQUAN*, Dr. T. L. Flood, and his traveling party, spent the most of the month of April in visiting Italian cities, including Rome, Naples, Pompeii, Florence, and Venice. After a week or more in Paris the party went early in May to London, in and about which city they expect to remain for some three weeks, returning to America in June. Chancellor Vincent's party has returned from Syria to England. A meeting of the English and Scottish friends of the C. L. S. C. was held in London on May 5, at which both Chancellor Vincent and Dr. Flood were present. Good results are expected from this meeting.

The *Chautauqua Assembly Herald* for eleven years edited and printed on the Chautauqua Assembly Grounds as the organ of the Summer Meetings, is about to enter on its twelfth volume. No other paper published furnishes reading matter similar to that of the *Assembly Herald*. All its features are peculiar to itself and purely Chautauquan. Class room work, conventions, debates, lectures, and conversation, contribute fresh, thoughtful, and useful matter to its columns. It prints nearly eighty of the best lectures delivered on the Chautauqua platform, publishes daily reports of the educational and religious work done, and collects columns of spicy and interesting personals and anecdotes of Chautauqua people and Chautauqua life. The cost of the *Assembly Herald* is \$1.00 per volume. A great advantage is offered to subscribers to *THE CHAUTAUQUAN*, who wish the *Assembly Herald*, through our combination offer, by which the two may be secured for \$2.25. In combination with *THE CHAUTAUQUAN* and the *Chautauqua Boys and Girls*, the price is \$2.70. This offer will be withdrawn after August 1, 1887.

The fishery dispute between the United States and Canada contains not a little of the stuff national quarrels are made of. It has furnished and is still furnishing material for much foolish comment, though the course of the President and Cabinet has been both discreet and dignified. What is needed is a "good talk" between British and American authorities, settling the points of disagreement and removing all excuse for deeds of violence from both sides; and in all probability such a talk is progressing. In another particular there is a need of a better understanding between Canada and the United States. It is in regard to the boundary between Alaska and the British possessions; this has never been settled by careful survey and now that gold has been discovered in that region the probability of disputes arising is quite as great as in the fishing grounds.

It looks as if the Mormons themselves were beginning to appreciate the strength of the hatred which the country at large feels toward the doctrine of polygamy. At a convention held in Utah in April, an epistle was read from President Taylor and his advisers, condemning Congress for its "haste and zeal of madness to destroy Mormonism," but saying not one word of

polygamy. About the same time the Josephites, a branch of non-polygamous Mormons numbering 20,000, held an eight-day conference in Kirkland, Ohio, at which polygamy was severely condemned. With one branch openly opposing and another studiously avoiding discussion of the doctrine, there is hope that reform within the Mormon body may unite with the pressure without to crush this monstrous growth.

A serious loss to the Indian Territory was the burning of the Girls' Seminary near Talequah on April 10. Two hundred girls could be accommodated there, and much excellent educational work had been accomplished. It is highly desirable that the seminary be promptly rebuilt, the more so because it is one of the very few well-organized and well-established schools for the Indians in the country. A thorough school system under competent direction is one of the great needs of the Indians. The reports from the majority of the agency schools are most disheartening.

The most extensive trial of Woman's Suffrage yet made in the United States was in the municipal elections of Kansas in April. The privilege was granted only a few weeks before the election, but a large percentage of women registered, and nearly all voted who registered. The ballots they cast were in the majority of cases in favor of order, temperance, and reform. No evidence was obtained from the day's work to favor the theory that suffrage to women means an overthrow of domestic economy or an undermining of state government. A lamentable feature of the elections in two cities was the effort to make voting capital out of social distinctions. When we consider, however, the size of the new element introduced, the little friction resulting is remarkable.

The West and South are possessors of those fascinating and mysterious things, real estate "booms." Property is going up with bewildering rapidity, prices doubling in a single night. Large numbers of towns are taking on city airs, and many uncultivated claims have been laid out in lots and converted into "paper towns". Undoubtedly much money will be made, but as much more will be lost. The only safe way to treat a speculative boom is to keep away from it.

The "boom" of the South and West has its foundation on the improved industrial condition of the country. While this feverish rise in property is largely speculative, there is unquestionably a demand for property and an increase in building. A trustworthy standard from which to judge is a recent report from *Bradstreet's*, regarding the number of workmen employed in various industries and the wages received. This shows that in the localities examined there has been a gain of about twenty-seven per cent in the numbers employed now, over those of two



years ago; while almost uniformly there has been an advance in the same period of from five to fifty per cent in the wages given.

A decided impulse has manifested itself, of late, in favor of law and order. Philadelphia's case we have cited. In Old Cambridge, Massachusetts, a public meeting was held not long ago demanding an enforcement of the "no-license" vote of the late election. In many small cities and towns there is a sentiment in favor of strict enforcement of the ordinances on the records. The condition of nine-tenths of our cities is a stinging reproach to the public spiritedness of their populations. We have lax laws because we are luke-warm citizens. Earnestness in this cause cannot fail in the long run. Now that there is a feeling abroad that decency and order are possible possessions, it will be wise to arouse your town to support better government.

New York's experiment of putting women on the school board though but recent, is demonstrating that certain remarks of our *Outlook* for January were true, viz.: that women would see many things that men do not, that they would inspire confidence in the teachers, and have more sympathy with the children. The experiment in New York shows just these results. A notable point in that city is the care the women directors exercise over the sanitary condition of the schools.

Like the trial of the boodle aldermen in New York and of the anarchists in Chicago, the Haddock murder trial in Sioux City is of national importance. When both Jaehne and McQuade were brought to trial there was a doubt in the public mind that such unscrupulous men backed by so strong and unscrupulous a constituency could be convicted; during the trial of the anarchists last summer there was a constant fear that they would go unconvicted; the public is watching the struggle of the saloon element against the state of Iowa in its search for Mr. Haddock's murderer with similar interest and anxiety. Raids on the public treasury have been shown to be unsafe; anarchy has been drowned by a vast flood of votes in Chicago; now can the saloon element be made to feel public sentiment?

The body of a woman murdered at Rahway, New Jersey, a few weeks ago, has been identified as that of twenty-four different persons, and has been examined by a very large number of people, some of them from distant cities, who were looking for missing friends. The appalling number of unexplained disappearances this fact reveals, emphasizes with force the care parents and friends ought to keep over young persons, particularly girls, who go to cities for study, to look for work, or to accept positions. The usual way is to trust them to "take care of themselves." Ignorant, innocent girls are rarely capable of taking care of themselves amid the pitfalls of a city; their guardians should *know* they are in safe hands.

A sorrowful social picture was hung before the public gaze when the details of the robbery of the Pan Handle Railroad, by its employees, were made public. For three years a systematic stealing from freight trains has been practiced, between Pittsburgh, Pa., and Columbus, Ohio, by a league of brakemen and conductors. Nearly a hundred employees were involved. It is humiliating to Christian workers that an association of such men could by chance come together; or that together, no influences for good were thrown around them, which, by winning some of them to better lives, would break up the whole conspiracy. Was there no Young Men's Christian Association along the route of the road? Had the officials no arrangements for elevating their men morally? Were there no religious influences thrown about them?

Stanley's expedition after Emin Pasha so absorbs public interest that we may forget that other parts of the world are in

process of exploration. In Africa the Cameroon Mountains and the river system in that district, the upper Niger and the district between Sankuru and Nyangwe are undergoing examination, and recent reports have been received from not only Stanley but also from the Reverend George Grenfell, from parties in Madagascar, from Dr. Junker of his six years in Africa, and from Lieutenant Baert concerning Mongalla. Several explorers, Russians, Frenchmen, and Englishmen, are in Central Asia. In America surveyors are at work in Alaska and British Columbia, and reports have recently come of work done in Patagonia, the Argentine Republic, along Cape Horn and in the valley of the Andes. An expedition soon starts for the Antarctic region under Baron Nordenskjöld, and several geographical societies favor parties to the same region. Polar parties are not as highly in favor as formerly.

Decidedly the greatest improvement made in railroad travel for several years is the Pullman vestibuled train. The device consists in connecting sleepers by means of vestibules so that a train of several cars may be converted practically into one car. These vestibules are so constructed on steel frames backed by elastic springs that when the cars are coupled, the passage way between is perfectly close, a part, in fact, of the car. Not comfort alone is secured by this contrivance, the oscillation of the cars is largely reduced. The greatest result of this new arrangement is the added safety which it is claimed is secured; it is declared to be almost impossible to "telescope" the cars in collisions.

The submarine cable is an invention from which we are continually reaping greater and greater benefits, but to which we give little attention. It will be undoubtedly a surprise to many to learn that there are one hundred seven thousand miles of cable in existence, and so perfectly is it laid that there is little danger of breaking and little trouble in repairing.

The theory that one portion of the country is safer from elemental disturbances than another is not supported by facts. In April the prairie fire which destroyed life and property in Kansas and Dakota was offset by earthquake shocks in Vermont, the Mississippi Valley cyclone in which property was destroyed and many people maimed, by an equally destructive storm in Ohio, and submarine eruptions of the Pacific, by heavy snow storms in the east. The elements are more impartial than we give them credit for.

General Greely, the new head of the Weather Bureau, is preparing a chart from which the probable quality of the weather in any stated period can be reckoned with a reasonable degree of certainty. It is based on daily observations of the temperature, rain-fall, etc., and extends over a period of fifteen years. The mean average of temperature or rain-fall of a part of a season is compared with the mean average of the whole of the fifteen corresponding seasons and from this comparison it is easy to see what the weather will probably be; thus if the temperature of a part of a season averages much higher than the average of the fifteen years it is safe to predict for the rest of the period a lower temperature sufficient to bring the season's average down to the normal figure. This really is reducing to a more scientific basis the common prognostication, "we'll pay for this," after an uncommonly pleasant March (as we enjoyed this year) or, "next month will be pleasant" after a series of storms.

Bishop Hurst makes a grave charge against the financial management of American colleges in his article in the present issue of *THE CHAUTAUQUAN*, but one which our observation convinces us to be true. 'One of the curses of educational management in the United States is its financial concealments.' Very many men of money withhold gifts because they cannot see how the funds already in hand are used. Their business sense is too

keen to invest funds in institutions conducted on other than business principles. Certainly the Alighu College is "an excellent model for some of our American treasurers and other officers of colleges and universities, who imagine that the public have nothing to do with the details of financial management. Let the public know where money for a school comes from, and whither it goes, and they will entrust it with more."

Five years ago a group of American college professors established in Athens a school for classical study; its objects, to give American students better opportunities for classical work, to encourage original research, and to conduct excavations. The result has been so highly creditable to our scholarship that last year the Greek government gave the school a building site on Mount Lycabettus and friends here have raised funds to erect a permanent building. An endowment is now desired. The school has done no little to win respect for American culture among European scholars. In line with this school is one to be established in Rome. Dr. Warren of the Boston University goes there this summer to begin the work. A school of Biblical archaeology and philology in Beirut, Syria, is talked of among biblical scholars as highly important.

When a country finds its colleges and towns almost simultaneously celebrating their centennials, it may rest satisfied that if not perfectly, its foundations are, at least, solidly, laid. Springfield, Mass., and Harvard College were both two hundred fifty years old not long ago. Several cities have rejoiced over their one hundredth birthday, and on April 13, Columbia College in New York City held a celebration over its centennial.

Mr. F. N. Barrett, editor of the *American Grocer*, has prepared at the request of the editor of the *New York Christian Advocate*, and published both in that paper and, in detail, in the quarterly report of the Bureau of Statistics, an elaborate report of the amount spent last year in the United States for intoxicating drink. It foots up to \$700,000,000 an amount which Mr. Barrett computes to be between one-twelfth and one-sixteenth of the entire cost of living in this country. Those who drink this liquor constitute about one-fourth of our entire population, they pay for it two and one-third times as much as it costs the manufacturer. This remarkable calculation has one feature of hopefulness. It shows that the use of spirits and of wines is decreasing, while beer is taking their place.

A great fortune owes something to the public from which it is drawn, and few months can show so many cases in which the obligation has been recognized as last April. In art Mr. Vanderbilt's gift of Rosa Bonheur's "Horse Fair" to the Metropolitan Museum was followed by the bequest of Miss Catherine Lorillard Wolfe's fine collection of paintings with a gift of \$200,000 for supporting the collection, and by a gift of pictures from Mr. Geo. Seney, both to the same museum. Leopold von Ranke's library was bought and presented to Syracuse University, New York, and Wm. Scherer's, to Adelbert College, Cleveland, Ohio; \$100,000 was given by Mr. S. B. Chittenden, of Brooklyn, to Yale College for a library building; Yale also received \$25,000 anonymously for its law department; and \$25,000 was presented Harvard College by Mr. Carey, of New York, for a swimming bath in the gymnasium. At the Columbia Centennial it was announced that \$100,000 had been presented to the college to endow a chair of rabbinical Hebrew.

Miss Catherine Lorillard Wolfe, who died in New York City on April 4, was counted the richest woman in the United States. Her life afforded noble points for students of charity methods. She gave only when convinced that the object was

worthy. She considered the relative importance of the claims presented to her. She was invariably quiet in her charities. She put much of her gifts into the education of girls and the help of women supporting families. She saw in the church the most powerful weapon for good on earth and recognized that it had the first claim on her time, her sympathy, and her money.

A handsome and well-deserved tribute was paid to the learned women of America at the centennial celebration of Columbia College. Honorary degrees were conferred on a large number of persons. Among them were Miss Alice Elvira Freeman, President of Wellesley College, Amelia Edwards, the Secretary of the Egyptian Exploration Fund, and Maria Mitchell, Director of the Observatory of Vassar College.

The roll of heroes has received a new name. In April a train on the New York Central was wrecked. The engineer, Edward Kennah, was fatally injured. His comrades rushed to his assistance. As they came to him he called out, "Flag the train, boys," and fell back dead.

One can never be too wary about answering advertisements which promise large rewards and small work. Miss Susan Hayes Ward who wrote the practical article on "In-Door Employments for Women", in *THE CHAUTAUQUAN* for February, has called our attention to a trap set in various newspapers throughout the land for women of small means desiring employment at home. The company represents itself as an art society, usually located in Boston, which sends to applicants on receipt of a small amount of money, silk, satin, or something to be decorated. The money is either never heard from, or, if the materials are sent, the work returned is represented by the firm as unsatisfactory, and so never paid for. The Women's Educational and Industrial Union of Boston to which Miss Ward wrote replies:—

"A little thought or perhaps a little experience in the matter will show the fraudulent character of such advertisements. If any one really had any such decorative work to be done here in Boston, the simple announcement in any morning paper would bring hundreds of applicants, skilled and capable artists, who would gladly do the work for small pay."

On April 12, St. Augustine, Florida, was largely destroyed by fire; the loss of the greatest importance was the old cathedral, one of the very few historic structures in the country. The cathedral dated from 1793. St. Augustine the oldest city in the United States has long been regarded one of the quaintest. Its attractions for health seekers and lovers of the picturesque were, however, so great that it has been undergoing that rapid and peculiar metamorphosis inevitable to old towns when business life awakens. Like Rome, it is both old and new. A peculiarity of recent building has been the use of shell concrete, from which all the old buildings are constructed. The late fire will do not a little to modernize St. Augustine, though it is probable the cathedral will be restored, the walls being but partially destroyed.

Now that the season for tramps and loafers has returned, village people who would rid themselves of the pest might consider the method of the Mormons at Nauvoo, Illinois, the center of the sect from 1839-'45. When a lazy man came to Nauvoo it became the business of certain officials to "whittle" him out. By chance, as it at first appeared, the person was surrounded by several diligent whittlers whose sticks were never exhausted and whose hands were never tired. Day by day they followed him about until of sheer desperation the persecuted individual left the town.

## C. L. S. C. NOTES ON REQUIRED READING FOR JUNE.

### PEDAGOGY.

1. "Mentor." The faithful friend of Ulysses, to whom the latter, on setting out for Troy to take part in the wars, gave in care his household. When the young son, Telemachus, some years later started forth on his expedition of search after his father, the goddess Minerva assuming the form of this tried and true counselor accompanied him in his wanderings, comforting, encouraging, and instructing him all the way. It is customary to apply his name metaphorically to any sage instructor or adviser.

2. "Mason," Jeremiah. (1768-1848). A distinguished American statesman and lawyer, who while a young man gained the reputation of being at the head of his profession in his state, New Hampshire. In 1813 he was sent to the United States Senate, which position he resigned after four years. Later he served for several sessions in the State Legislature. He was generally looked upon as the foremost lawyer of his time to be found in all New England.

3. "Bulwer-Lytton," Edward George. (1805-1873). An English novelist and statesman. He was a son of General Bulwer, a descendant of an old Norman family, whose wife, Elizabeth Lytton, was heiress of vast estates. In order that he might succeed to these, the son assumed the surname of his mother. He was educated at Cambridge, and while there as student gained a reputation for his poetry. During his vacations he made journeys through England, Scotland, and parts of France. In his later poems he was not successful, but his novels were held in great favor. He was one of the most voluminous of writers, his novels numbering twenty-five, among which the best known are, probably, "The Last Days of Pompeii," "Rienzi," "The Caxtons," and "Pelham." He also wrote several dramas, and poems, and pamphlets of a political nature, papers for periodicals, etc., etc. He served several terms as member of Parliament. He was raised to the peerage in 1866, and henceforth was known as Baron Lytton. His marriage proved a very unhappy one, and in 1836 a separation took place. Several years after this, when Lord Lytton made a public speech of thanks for his election to Parliament his divorced wife took the platform after him, giving a violent harangue against him. For this she was thought to be insane and was confined for a time in an asylum. His son, Edward Robert, has gained a reputation as a poet under the pseudonym, Owen Meredith.

### CIVIL ENGINEERING.

1. "Brunel," Isambard Kingdom. (1806-1859). He inherited his great mechanical genius from his father, Sir Mark Isambard Brunel, who was associated with him in the construction of the Thames tunnel and who was the real projector of that stupendous work, the son carrying out the father's designs.

2. "The Thames tunnel." It was constructed two miles below London bridge, and connects Wapping on the left bank of the Thames with Rotherhithe. "It consists of two arched passages 1,200 ft. long, 14 ft. wide, and 16½ ft. high, separated by a brick wall 4 ft. thick with 64 arched openings. The crown of the arch is 16 ft. below the bottom of the river. The descent and ascent are effected by stairs winding round cylindrical shafts, 38 ft. wide and 22 ft. deep. It was the greatest achievement of the elder Brunel, and was commenced March 2, 1825, interrupted by an inundation August 12, 1828, recommenced in January, 1835, and opened March 25, 1843. The total cost was £468,000. The penny toll and other receipts were under £6,000 annually, and the constant influx of land springs caused considerable expenditure. The tunnel was consequently sold in 1865 for £200,000 to the East London Railway Company for connecting the Great

Eastern and North London railways with those on the south side of the Thames; and it was altogether closed as a public footway on July 9, 1869."—*The American Cyclopaedia*. A new tunnel, known as the Thames subway has since been built and is now in use.

### ROCKS TRIED BY FIRE.

1. "Bernard Palissy," pä-lē-sē. (1506(?)—1589). A noted French potter. His attention was called to some pottery from Italy, or, as some suppose, from Nuremberg, which was highly enameled. He determined to discover the process by which the work was brought to such perfection. He reduced himself and family to utter poverty in his search after the secret, which he at length discovered in 1555, after sixteen years of unremitting labor. Having become a convert to the doctrines of the Reformation he was imprisoned, but was shortly released and appointed "maker of the king's rustic potteries." This position saved him from suffering in the Massacre of St. Bartholomew. His works in pottery were eagerly sought. He published several treatises on his art. His religious opinions again brought him into difficulty, and in 1588 he was arrested and placed in the Bastille where he died.

2. "Bisque." A kind of white porcelain, unglazed. It is used chiefly in making statuettes.

ERRATUM. In the article by Mr. Barnard in the May issue, "A Stellar Paint Brush," he was made to say, "Procure a few cents' worth of bi-carbonate of potash," etc. It should be, "bi-chromate of potash."

### STUDIES OF MOUNTAINS.

1. "Reclus," Jean Jacques Eliseé, reh-klü'. (1830—). A celebrated French geographer. He traveled extensively throughout Great Britain and North and South America, and after returning to France wrote a series of books of travel. After the establishment of the Commune in Paris, he still continued to serve in the National Guard; for this offense he was sentenced to death, but the sentence was changed to that of banishment, and he was afterward pardoned. He published several books of travels. It is in one of his books that the account of throwing Christians into lava streams in Japan is given. In the New York *Herald* of March 8, there was an account of an occurrence similar in bearing to the practice alluded to here. The young princess, Like Like, of the Sandwich Islands, recently gave her life a sacrifice to the angry goddess Pele, who was manifesting her displeasure in great eruptions of the volcano Mauna Loa. The old belief of the natives taught that she could only be appeased by the sacrifice of some member of the royal family, and Like Like proclaimed herself ready to die, a martyr for the people. This princess had received an American education, had married an American, and had before her a prospect of becoming queen of the country, but she voluntarily gave up all, and laid down her life. She was starved to death, going for days and days without food. After her death she lay in state for twenty days, and was then placed in the royal mausoleum on February 28, 1887.

2. "Hellas." The name given by the Greeks to their country. The terms Greece and Greeks were bestowed upon the land and the people after the Romans had conquered them. The people always called themselves the Hel-lē'nes, and their land Hellas.

3. "The Titans." The children of Uranus and Ge, the heaven and the earth, six sons and six daughters. The story is that Uranus was afraid his children might try to usurp his command, and as fast as they were born he threw them into Tartarus. The



mother helped them to get free from their prison. Chronus, for whom she made a sickle, conquered his father and took upon himself the power of ruling. He was told that one of his sons would supplant him. To prevent this he swallowed his children as soon as they were born. By strategy one of them, Zeus, was saved, the mother giving to the father a stone to swallow in place of the child. When Zeus (Jupiter) had grown, he began war against his father and the other Titans, conquered them, and cast them into a subterranean dungeon.

4. "Bacchantes." The women who took part in the festivals of Bacchus, who by wine worked themselves up to a frenzy, during the celebration. *Evoe* was a shout of joy at the festivals of Bacchus.

5. "Pan." The great god of flocks and shepherds, of the fields and the woods, among the Greeks. He lived in grottoes, roamed over the mountains and through valleys, and led the dances of the nymphs. He was fond of music and always carried with him the shepherd's pipe. "Pan like other gods who dwelt in forests, was dreaded by those whose occupations caused them to pass through the woods by night, for the gloom and loneliness of such scenes dispose the mind to superstitious fears. Hence sudden fright without any visible cause was ascribed to Pan and called a Panic terror. As the name of the god signifies in Greek, *all*, Pan came to be considered a symbol of the universe and personification of nature; and later still to be regarded as a representative of all the gods and of heathenism itself."—*Bulfinch's Mythology*.

6. "Kobolds." See *C. L. S. C. Notes* for December. "House-spirits in German superstition; the same as our Robin Goodfellow and the Scotch brownie." "Brownie. The house-spirit in Scottish superstition. He is called in England, Robin Goodfellow. At night he is supposed to busy himself in doing little jobs for the family over which he presides. Farms are his favorite abode. Brownies are brown or tawny spirits, in opposition to fairies which are fair or elegant ones." "Trolls. Dwarfs of Northern mythology, living in hills or mounds; they are represented as stumpy, misshapen, and humpbacked, inclined to thieving, and fond of carrying off children or substituting one of their own offspring for that of a human mother. They are called hill-people and are especially averse to noise, from a recollection of the time when Thor used to be forever flinging his hammer after them."—*Dictionary of Phrase and Fable*.—"Kobolds assist in the household and love to play tricks on the servants. The miner's kobold reveals valuable veins and protects the virtuous."

7. "Adam's Peak." A conical mountain 7,420 feet high. It is held sacred by the Mohammedans and Buddhists, who make frequent pilgrimages to it. The summit is surrounded by a wall, through which two gates admit the visitors. An impression resembling that made by a gigantic foot is believed to have been made by Buddha when he stepped from this peak to Siam. The Mohammedans, however, claim that the impress was left by Adam when he was driven from paradise, which they believe to have been situated near Ceylon; hence the name of the peak. The ascent is so steep that it has to be made by means of chains fastened to the summit.

8. "Lamas." Buddhist priests. Lamaism is a modified form of Buddhism, some doctrines and forms of other religions being incorporated with the latter. At the head of the organization are two grand lamas equal in authority and holiness. They consecrate each other. Their people believe that these leaders can never die. When for any cause the body of one perishes, the spirit passes immediately into the form of some boy four or five years of age, and this child must be found by the dignitaries next in rank to these lamas. Many forms and ceremonies are gone through with to test if the right child has been discovered, who is, strangely, always the one whom the emperor of China wishes to be in the place. There are several ranks of officers of varying degrees of honor in the body, and the term lamas is frequently applied to the members of all. Women are frequently admitted

to all save the highest order, and both sexes take vows of celibacy. One-eighth of the whole population in Mongolia is made up of lamas. They meet three times a day for worship, which consists in reciting prayers and texts, during which music is made by horns, drums, and trumpets, a noisy, meaningless clangor.

#### THE WOMAN'S HOUR IN FOREIGN MISSIONS.

1. "Karens." Also written Kayrens and Karrans. A rude people, living in parts of China, in Burmah, and Siam. They dwell in the mountains and in jungles. Their origin is unknown; they have been thought by different scholars to be aborigines, to be emigrants from India, and from the north. The labors of the missionaries among them, especially those of Dr. and Mrs. Boardman and the Judsons, were remarkably fruitful. The native churches, in 1865, were formed into a "Burmah Baptist Convention" which meets once a year. The number of Karen churches reported was three hundred forty-three having about eighteen thousand members. They have a theological seminary and a college at Rangoon.

2. "Nestorians." A sect of early Christians. They claim to be descendants from Abraham, saying that their ancestors came from Ur of the Chaldees. They were several times nearly overpowered by the Mohammedans. The early missionaries visiting them found them still nominally preserving their religion, but very ignorant and degraded. They kept a few copies of the Bible, which were laid away in their churches, and brought out "only on saint's day to be kissed but not read." The missionaries were kindly received and many churches and societies have been organized among them.

Since this article was prepared for the press, one medical woman, Dr. Ellers, of the Presbyterian Board, has entered Korea. Her presence only emphasizes the still unsupplied need of Korean women.—*Mrs. Harris*.

#### PRACTICAL SUGGESTIONS ON ENGLISH COMPOSITION.

1. "John Hullah." (1812—). An English composer and popular teacher of music. He made a reputation in setting Dicken's comic opera, "The Village Coquette," to music. He lent his energies to the establishment of a new system of musical instruction in England; and has written several works on music.

2. "Sir Joshua Reynolds." (1723-1792). The most celebrated portrait painter England has produced. He was a very intimate friend of Dr. Johnson, and with him founded the Literary Club comprising twelve members. In 1768 he was chosen president of the Royal Academy and on that occasion was knighted. Shortly after he was made the chief painter to the king. He never married, and he left a fortune of £80,000, which fell to his niece, Miss Palmer, afterward marchioness of Thomond.

3. "Novalis." (1772-1801). A renowned German philosopher whose real name was Friedrich von Hardenberg. His greatest work is a mystical romance called "Heinrich von Ofterdingen." Another remarkable work was "Christianity in Europe." "The moral beauty of his life, the spiritual penetration and suggestiveness of some of his writings, and his enthusiastic love for the chivalric periods of Christianity and history made him the idol of his friends; and although his works are but few and fragmentary, he holds a position in German literature as one of the chief representatives of the romantic school."

#### ASTRONOMICAL NOTES FOR JUNE, 1887.

THE SUN.—The sun enters *Gemini* and summer begins at 1:00 p. m., on the 21st, which is also the longest day in the year, from sunrise to sunset being 15h. 3m. On the 1st, 11th, and 21st, the sun rises at 4:32, 4:29, and 4:30 a. m. respectively; and sets on the corresponding days at 7:23, 7:29, and 7:33 p. m.

THE MOON.—The phases for the month are as follows: Fulls on the 5th, at 5:18 p. m.; enters last quarter, on the 13th, at 8:14

a. m.; becomes new on the 21st, at 5:32 a. m.; enters first quarter, on the 28th, at 4:41 a. m.; is nearest the earth, on the 2nd, at 6:00 a. m.; farthest from the earth, on the 14th, at 6:42 a. m.; and again nearest the earth, on the 28th, at 1:42 a. m.; rises on the 1st, at 1:58 a. m.; sets on the 11th, at 11:50 p. m.; and sets on the 21st, at 4:45 p. m.

MERCURY.—During the month, makes a direct motion of  $49^{\circ} 21' 01''$ ; continues an evening star, setting at 7:54 p. m. on the 1st, at 8:48 p. m. on the 11th, and at 9:08 p. m. on the 21st; increases in diameter  $2''.8$ ; on the 20th, at 4:00 p. m., is  $1^{\circ} 34'$  north of Saturn; on the 23rd, at 5:05 a. m., is  $3^{\circ} 27'$  north of the moon; is visible to the naked eye on the last few evenings of the month.

VENUS.—Is also an evening star during the month, setting in the evening as follows: on the 1st, at 10:25; on the 11th, at 10:24; on the 21st, at 10:16; diminishes in diameter,  $4''.6$ ; on the 24th, at 6:38 a. m., is  $2^{\circ} 1'$  north of the moon; has a direct motion of  $33^{\circ} 09' 20''$ .

MARS.—Shines during the day, rising on the 1st, at 4:04 a. m., setting at 6:34 p. m.; rising on the 11th, at 4:48 a. m., setting at 6:30 p. m.; rising on the 21st, at 3:35 a. m., setting at 6:25 p. m.; has a direct motion of  $22^{\circ} 20' 19''$ ; on the 20th, at 1:20 a. m., is  $5^{\circ} 01'$  north of the moon.

JUPITER.—Has a retrograde motion of  $41' 52''$  up to the 23rd, and then a direct motion of  $5' 01''$  for the rest of the month;

being stationary at midnight on the 22nd; on the 2nd, at 6:43 a. m., is  $3^{\circ} 22'$  south of the moon; on the 29th, at 11:44 a. m., is  $3^{\circ} 40'$  south of the moon; diminishes in diameter,  $3''.2$  is an evening star, setting at the following times: on the 2nd, at 2:29 a. m.; on the 12th, at 1:48 a. m.; on the 22nd, at 1:08 a. m.

SATURN.—Is also an evening star, setting on the 1st, 11th, and 21st, at 10:09, 9:34, and 8:59 p. m., respectively; diminishes in diameter,  $0''.4$ ; has a direct motion of  $3^{\circ} 49' 10''$ ; on the 20th, at 4:00 p. m., is  $1^{\circ} 34'$  south of Mercury; on the 22nd, at 11:20 p. m.,  $2^{\circ} 26'$  north of the moon.

URANUS.—Is also an evening star, setting on the 2nd, at 1:42 a. m.; on the 12th, at 1:03 a. m.; on the 22nd, at 12:23 a. m.; on the 1st, at 12:34 a. m., is  $3^{\circ} 09'$  south of the moon; on the 20th, at 7:00 a. m., is stationary; on the 28th, at 5:56 a. m., is  $3^{\circ} 23'$  south of the moon; on the 30th, at 8:00 a. m., is  $90^{\circ}$  east of the sun.

NEPTUNE.—Rises on the 1st, at 4:01 a. m., sets at 6:11 p. m.; rises on the 11th, at 3:23 a. m., sets at 5:33 p. m.; rises on the 21st, at 2:45 a. m., sets at 4:55 p. m.; on the 18th, at 6:42 p. m., is  $3^{\circ} 29'$  north of the moon.

OCCULTATIONS (Moon).—On the 19th, *Alpha Tauri*, beginning at 3:39 and ending at 4:00 p. m.; on the 25th, *Alpha Leonis*, beginning at 10:08 and ending at 11:09 a. m.; on the 26th, *Sigma Leonis*, beginning at 8:30 and ending at 9:30 p. m.; only the last-named visible to the naked eye.

## THE QUESTION TABLE.

## TEST QUESTIONS IN ENGLISH HISTORY.

1. Which kingdom of the Saxon Heptarchy was the first to accept Christianity?
2. Who organized the Church of England?
3. What were the first national gatherings for general legislation?
4. Of what did the canons enacted by the early ecclesiastical councils lay the foundation?
5. Who was the first king to repudiate the claims of the pope?
6. What king resigned his crown to the pope and received it back as a vassal?
7. What king compelled the church to be represented in parliament?
8. During whose reign was the first law passed for sending heretics to the stake?
9. What was "Morton's fork"?
10. What king assumed the title of Supreme Head of the Church of England?
11. Who compiled the first prayer-book, and at whose request?
12. What sovereign was petitioned "to set at liberty the four evangelists and the apostle Paul, who had been for some time shut up in a strange language"?
13. Who were the recusants?
14. By whom was the ecclesiastical administration principally directed during the reign of Charles I.?
15. During what years was the Church of England practically suspended?
16. To what did members of parliament bind themselves when they signed the Solemn League and Covenant of 1643?
17. What were the leading causes of the revolution of 1688?
18. What great religious revivals have taken place since the period of indifference which followed that revolution?
19. What was the Toleration Act?
20. What has been the great achievement of the English Church during the present century?

## TWENTY FIVE QUESTIONS ON FRENCH LITERATURE.

1. What was known as the "Piéiade"?
2. What was its object?
3. How old was Calvin when he finished his great literary work, the "Institutes of the Christian Religion"?
4. Who wrote the "Satyre Ménippée"?
5. What French authoress was known as Sappho?
6. Give the name of a deformed French poet whose widow married a king of France.
7. From what eminent French writer in reduced circumstances did Catherine of Russia buy his library, and then employ him on a fine salary as keeper of it?
8. Who wrote "La Lac"?
9. What celebrated authoress did Napoleon banish from France?
10. Who was George Sand?
11. What writer was the leader of the modern school of romanticists?

12. What one of Victor Hugo's works is most generally known?
13. What French writer was drawn in his carriage by the people through the streets of Paris?
14. In what style of writing was Saint-Beuve distinguished?
15. What French writer is the author of the "History of English Literature"?
16. Who was the most eminent philosopher of the present century?
17. What great modern writer admits the excellence of the Christian religion, but discredits its origin and rejects the miracles?
18. What modern writer published a volume of poems when he was only nineteen years of age?
19. What great modern statesman gained a reputation as a historian?
20. What great naturalist was appointed by Napoleon, counselor of state in 1814?
21. Who was called "the Burns of France"?
22. What celebrated writer gave in a romance a picture of aboriginal American life; and what was the name of the book?
23. What great scientific writer was the author of the expression, "The style is the man"?
24. How does the literature of France compare with that of the other European nations?
25. Is there any really great epic poem belonging to French literature?

## RHETORIC.

Give the meaning of the following foreign words and phrases:—

- |                             |                            |
|-----------------------------|----------------------------|
| 1. <i>Ad infinitum.</i>     | 11. <i>Nolens volens.</i>  |
| 2. <i>Ad libitum.</i>       | 12. <i>Penchant.</i>       |
| 3. <i>À la mode.</i>        | 13. <i>Quid pro quo.</i>   |
| 4. <i>Bas bleu.</i>         | 14. <i>Sang froid.</i>     |
| 5. <i>Bona fide.</i>        | 15. <i>Sotto voce.</i>     |
| 6. <i>Coup d'état.</i>      | 16. <i>Sub rosa.</i>       |
| 7. <i>Dolce far niente.</i> | 17. <i>Semper fidelis.</i> |
| 8. <i>Élite.</i>            | 18. <i>Sine qua non.</i>   |
| 9. <i>Entre nous.</i>       | 19. <i>Sans ceremonie.</i> |
| 10. <i>Mal à propos.</i>    | 20. <i>Vive vale.</i>      |

## NAME THE AUTHORS OF THE FOLLOWING:

1. Bread is the staff of life.
2. Earth has no sorrow that heaven cannot heal.
3. My better half.
4. Beautifully less.
5. To bear is to conquer our fate.
6. 'Tis hard to part when friends are dear.
7. Nursing her wrath to keep it warm.
8. 'Tis the divinity that stirs within us.
9. Too low they build that build beneath the stars.
10. The child is father of the man.
11. Truth crushed to earth shall rise again.
12. By hook or crook.
13. They learn in suffering what they teach in song.

14. I am monarch of all I survey.
15. Old Grimes is dead, that good old man.
16. Uncertain, coy, and hard to please.
17. Will you walk into my parlor?
18. The pen is mightier than the sword.
19. Westward the course of empire takes its way.
20. To beard the lion in his den.
21. The very pink of courtesy.
22. Pleased with a rattle, tickled with a straw.
23. The almighty dollar.
24. Sea of upturned faces.
25. There's nothing true but Heaven.

## MISCELLANEOUS QUESTIONS.

1. In what play of Shakspeare are the chalk cliffs of Dover described?
2. Who is called the "Cleopatra of the North"?
3. What poet laureate was called the "king of dullness"?
4. Why is an eagle used as supporter of a lectern?
5. Who originated the expression "God's image done in ebony"?
6. What is the ensign of China?
7. What is erotic poetry?
8. What are Fabian tactics?
9. Of whom did Dryden say, he "never deviates into sense"?
10. What was the Peninsular War?

## THE WORLD OF TO-DAY.

## RUSSIA.

1. What proportion of the whole land-surface of the globe is occupied by the Russian Empire?
2. What is its population?
3. How many daily papers are there in the whole empire?
4. What is the leading industry?
5. How many languages are spoken in Russia?
6. Which of the czars did the most toward advancing civilization in the empire?
7. What authority is vested in the czar?
8. What is the government of the Russo-Greek church?
9. Into what two classes are the priests divided?
10. How many dissenters are there?
11. Why has Russia retained the old style of reckoning time?
12. What is called the "Canterbury of Russia"?
13. Where are the czars crowned?
14. What was the Holy Alliance, and who was its founder?
15. Of what country was Finland formerly a part?
16. What use is made of the island of Saghalien?
17. What city was ordered built that the czar might have "a window looking out into Europe"?
18. Which is called the "White Stone City"?
19. What is the average amount of goods sold annually at the great fair of Nijni-Novgorod?
20. How is an approximate estimate of the attendance at this fair obtained?

## PRONUNCIATION TEST.

Mark the consonants and the vowels in the following words with the correct diacritical mark, then pronounce:—

- |                |               |                  |
|----------------|---------------|------------------|
| 1. Facade.     | 6. Mavis.     | 11. Taciturnity. |
| 2. Exaggerate. | 7. Harbinger. | 12. Horologe.    |
| 3. Engine.     | 8. Guava.     | 13. Knead.       |
| 4. Excursion.  | 9. Espionage. | 14. Vizier.      |
| 5. Distich.    | 10. Descant.  | 15. Chute.       |

## ANSWERS TO QUESTIONS IN THE CHAUTAUQUAN FOR MAY.

## ENGLISH HISTORY.

1. Canterbury.
2. Winchester cathedral.
3. Lincoln.
4. Worcester.
5. The one at Oxford.
6. Offa, king of Mercia, smitten with remorse for a treacherous murder, to expiate his crime founded it in the honor of the Christian martyr, Alban.
7. One tower of Canterbury cathedral is called by that name.
8. A park pale and stag couchant. In the cathedral at Ripon.
9. The recumbent figure of King John in Worcester cathedral.
10. In the cathedral of Durham.
11. St. Paul's cathedral.
12. Catherine of Aragon, and Mary, Queen of Scots.
13. The reign of William Rufus.
14. It diminished the number of canons, reduced their incomes, and brought all chapters to greater uniformity.
15. A dean and four canons, though some of the richer cathedrals have six canons.

## FRENCH LITERATURE.

1. Six.
2. French.
3. In the eleventh century.
4. In the twelfth century, excepting one, "*Chanson de Roland*," which was written in the eleventh century.
5. In the thirteenth century, just after the conquest of Constantinople by the French crusaders.
6. Froissart's "*Chronicles*."
7. The southern or Provençal dialect, and the northern or Roman-Wallonic; or *La Langue d'Oc* and *La Langue d'Oïl*.
8. The *troubadours* and the *trouvères*.
9. Both names are derived from the verb meaning to find; hence they were used to denote finders of song—poets.
10. Charlemagne and his paladins; King Arthur and his Knights of the Round Table; and Alexander and his followers.
11. The Alexandrine; so called from Alexander.
12. Biblical subjects.
13. In 1402, called "*La Fraternité de la Passion*." They represented "the entire life of Christ in a mystery-play of 67,000 verses employing 86 actors, and occupying several weeks in the representation."
14. Pierre Abélard.
15. Descartes.
16. The age of Louis XIV.
17. Rabelais.
18. Descartes.
19. Bernardin de St. Pierre.
20. In history.
21. Le Sage. It was the most celebrated.
22. Madame de La Fayette.
23. In 1635.
24. Richelieu.
- Forty.
25. Charles Rollin, author of the "*Ancient History*."

## RHETORIC.

1. Dr. of Dental Surgery.
2. Bachelor of Laws.
3. Civil Engineer.
4. Manuscript.
5. Master of the Elements.
6. *Deo volente* (God willing).
7. Old Style (before 1752).
8. Dr. of Philosophy.
9. Minister Plenipotentiary.
10. *Nota bene* (mark well).
11. *Jesus hominum Salvator* (Jesus the Savior of men).
12. *Messieurs*.
13. Her Majesty.
14. Member of Parliament.
15. *id est* (that is).
16. *exemplis gratia* (for example).
17. wrong font (type).
18. lower case (type).
19. *videlicet* (namely).
20. *quod vide* (which see).
21. *cetera* (and other things).
22. *idem* (the same).
23. *pinxit* (he painted it).
24. *obit* (he died).
25. transpose.
26. *et sequentia* (and what follows).
27. *instant* (this month).
28. *proximo* (next month).

## MISCELLANEOUS QUESTIONS.

1. Stephen Langton.
2. Henry VI.
3. The Cato-Street Conspiracy. Its object was to overthrow the government, by assassinating the cabinet ministers.
4. That they are firebrands flung by good angels against evil spirits that approach too near the gates of heaven.
5. A complete set of type of any one size, with all the usual points and accents. It consists of about 100,000 characters.
6. A part of the sheet which has failed to receive the ink, and is, therefore, left blank.
7. Oliver Goldsmith.
8. Samuel Pepys.
9. Jeremy Taylor.
10. Sir Walter Raleigh.

## THE WORLD OF TO-DAY.

1. Steady advance in every department of human interests.
2. Laws providing for payment of a duty on imported corn. The people, roused by Cobden, Bright, and other leaders of the Anti-Corn Law League, poured in petitions to Parliament, and Sir Robert Peel, as premier, brought in a bill for repeal in 1846.
3. The stimulus to trade, removal of anxiety as to the effects of poor harvests, and less fluctuation of prices.
4. Universal male suffrage, equal representation, the vote by ballot, annual parliaments, abolition of property qualification for office-holders, and payment of salaries to members of Parliament.
5. Courts for the sale of encumbered estates, establishment of a Roman Catholic university, extension of the suffrage, compensation to outgoing tenants for their improvements, disestablishment of the English Church in Ireland, and the Arrears of Rent Bill.
6. The return of peace after the revolutions on the Continent.
7. 1854 and 1858 respectively.
8. 1858.
9. 1867.
10. By purchasing the shares of the Khedive of Egypt.
11. A fear that the British government intended to extirpate the native religion and caste distinctions.
12. A war caused by the resistance of the Chinese government against the importation of opium from India. Hong Kong was ceded to Great Britain, and five Chinese ports were opened to British commerce.
13. The demand of Russia for a protectorate over the Greek Christians in Turkey. France and England united with the Turks to resist.
14. Those of the Northwest passage and Central Africa.
15. Lord Melbourne, Sir Robert Peel, Lord John Russell, Lord Derby, the Earl of Aberdeen, Lord Palmerston, Disraeli, Gladstone, Earl of Salisbury.
16. Burne-Jones, Doyle, Cruikshank, Eastlake, Hunt, Leighton, Leslie, Linton, Landseer, Leech, Millais, MacIise, Rossetti, Turner, Webster, Whistler.
17. Faraday, Darwin, Mill, Spencer, Tyndall, Huxley, Muller, Miller, Whewell.
18. Robert Browning, Mrs. Browning, Tennyson, Matthew Arnold, Rossetti, Keble, Faber.
19. De Quincey, Macaulay, Carlyle, Ruskin, Dr. John Brown.
20. Lord Shaftesbury, Morley, Livingstone, Duff, Moffat.

## RESULT OF VOTES ON QUESTIONS OF OPINION IN THE APRIL ISSUE.

1. Alfred, Elizabeth, Cromwell, Wolsey, Duke of Wellington.
2. Introduction of Christianity, Wiclif's translation of the Bible, the Reformation, defeat of the "Invincible Armada," and the disestablishment of the Irish church.



## TALK ABOUT BOOKS.

The remarkable history of Margaret of Angoulême\* has recently been written by Miss Robinson. Enthusiastic in her admiration of her subject's character, the author is, however, not prevented from giving a fair and unbiased account of her life. The important part Margaret played in the great religious movements of her day, being almost the only one in the royal circle to take the part of the persecuted reformers, is strongly placed before the reader. But with equal candor it is related how that through her great self-sacrificing love for her brother, Francis I. of France, and fear of offending him, she often refrained from using her influence in their behalf. Many of the thrilling scenes occurring during this reign are described in a picturesque manner. A long chapter is devoted to an account of the leading literary work of the queen of Navarre, the "Heptameron," and many selections from it are given. The book belongs to the "Famous Women" series, and is one of the best yet published.

In "A Short History of Parliament,"† the author beginning with the first forms of assembly known to the English people, the Folk-moot and the Witten-gemot, traces the gradual development and the continual growth of Parliament, bringing the record down to the present time. He, step by step, points out the slow but steady increase of power in the House of Commons until it "secured on a firm basis of precedent and custom the rights established under Edward III.," chief among which was its position as a body of equal power with the Lords. Contrary to what one might expect in a work of this character, there are many amusing pages to be found. Lively and exciting scenes are vividly drawn, and entirely relieve the book, necessarily so full of instruction as it must be, of the charge of heaviness. Synopses of speeches which have passed down to history as masterpieces of oratory and power, such as Burke's charge in the trial of Warren Hastings, are given. It is one of those books for which the increasing popular interest in historical study makes a wide demand, and this demand it most satisfactorily supplies.

In the series of "American Commonwealths," the history of New York‡ was one of the most important books to prepare; and full justice has been done it by the author. The opening chapters, giving an account of the Dutch colonization, are especially fascinating, constantly calling to mind Washington Irving's delightful burlesque of the then New Netherlands. The closing chapters give a reliable account of the riots occurring in 1863; and the author dwells at length upon the leading part the state has always taken in war and in all of the political interests of the nation, and upon the character of the people, who made New York what it is. The whole interlying field of history connected with the Empire State has been made the subject of critical study, and true and vivid pictures of all its stages are presented. It will rank with others of its series among the most generally useful books that can be placed in a library.

A late and valuable book on Brazil§ has been published by Mr. Andrews who recently returned from a three years' residence at its capital, Rio Janeiro, where he was engaged in the consular service of the United States. The rapid progress which that country steadily has been making for the last few years under the present emperor Dom Pedro II., furnishes ample material for a new book. This material the author has wisely collected, critically examined, and ably worked up. He has certainly attained his object, which was to "answer such questions as an intelligent American would be likely to ask in regard to Brazil." Among the most interesting of its chapters is the one on "Brazilian Literature." Brief sketches of the leading authors and their works are made and several excerpts given from the writings. Not venturing to trust his limited acquaintance with the language for a work of this kind he procured the assistance of a graduate from one of the highest institutions of learning in that country. Every part of the work has been treated with equal care. At the close of his chapter on "Slavery" in which he graphically describes the different emancipation projects which have been proposed, he says, "According to official returns the number of slaves in the empire on June 30, 1885, was 1,133,228; and it is likely that Americans will drink coffee produced by slave-labor for at least a quarter of a century longer."

The interest centering in Palestine makes thoughtful readers always desirous of obtaining trustworthy information regarding it. Mr. Oliphant's book, "Haifa,"¶ is composed of a series of letters extending over a period of three years, beginning with November, 1882, during which time he was a resident of that land. He made a careful study of the present condition of the country, and of its people; traced back the sacred historical associations

of the different places; gave much time in endeavoring to locate the sites of Bible events, which were still undetermined; and closely examined existing ruins. One of the best features of his work is the simple, direct manner in which it is written. Dealing so largely with archaeological subjects, usually treated in books in such a technical manner that only scholars care for them, this work has been so popularized as to hold the ordinary reader interested from the beginning to the end. The letters were written for publication in the New York *Sun*, and its editor, Charles A. Dana, has edited the book and written for it a highly commendatory introduction.

"Six Weeks in Old France"\* explains its scope in its title. A little party of American travelers settle themselves for this specified time in a château near Saumur, and from this as headquarters make excursions over all the surrounding country. The interesting objects and places visited, and the conversations in which all the historical events connected with them are related, are faithfully reported in the letters of one of the number to a friend at home. So much ground is covered in so small a space that the book is exceedingly fragmentary in its information, giving merely "touch and go" narratives of the greatest events. The personal sketches of the party are well drawn, however, and the thread of two love stories deftly and charmingly woven through it all, carries one's interest safely over the pedantic parts which might otherwise severely test it. The object of the writer in publishing the book is a most worthy one—in hope of aiding the children's Hospital of the Protestant Episcopal Church in Southern Ohio.

As soon as a trip to Europe has been decided upon, the best preparation that possibly could be made would be to purchase Cassell's "Complete Pocket Guide to Europe,"† and thoroughly study its contents; if the directions are followed, nothing will be left undone that should have been done. This guide gives concisely a tour of four months in Northern, Middle, Southeastern, and Southern Europe. The routes to be taken, the railroad fare, the special interest of a place, are made clear by maps and text. All these things combined render it invaluable to travelers in Europe.

The most striking thing about "The Mormon Puzzle"‡ is the italics and capitals, after that the earnestness of the writer. If the style is bad, the tone is vigorous. The matter is a careful and well-arranged compilation of facts concerning Mormonism, intended to show the strong and weak points of the system and to demonstrate the feasibility of the author's solution of the PUZZLE (as he persists in having the word printed). His means are three: to abolish woman's suffrage in order to lessen the Mormon vote; to provide for national colonization; and to establish a public school system. The last two are effective measures, but he omits from his scheme what his own arguments show to be the most needed of all, and that toward which all legislation thus far has tended, a constitutional amendment against the practice of polygamy. Mr. Beers seems to think such an amendment would furnish the Mormons added capital in the form of religious persecution. Any posing they might do under this would soon lose effect. The United States Government cannot dictate what a man shall believe but it has the right to say what his actions shall be. Prevent the practice of polygamy and introduce a system of public education, and Mormonism in its present obnoxious form will die of its own absurdities. The book has the merit of considering the Mormons as charitably as they can be considered.

A pleasant book for this season of the year is "Field, Wood and Meadow Rambles."§ In a very readable style is told the experience of two girls who devoted one summer to the study of birds, especially nest building. The book shows unmistakably that the work done was by amateurs; in statement it lacks the skill and positiveness of the trained naturalist; yet it is of value in this that it creates a desire to carry on original investigation, and demonstrates that experience is worth all the books ever written on a subject.

Fluent reading of French and German is one of the most practical investments students can make. It is almost imperative in many professions and highly desirable in all. The faculty is most quickly gained by continual sight reading. A little every day we should recommend, but students find some difficulty in securing easy books whose vocabularies are those of every day use. A series of books meeting this difficulty has been undertaken by Dr. Wilhelm Bernhardt of Washington. The first volume contains five short stories by prominent German story-writers. They are pure in tone, and original in plot, stories which stimulate sufficient curiosity to keep a student with very little interest in German at them until finished, a highly desirable result.

\* Six Weeks in Old France. By L. M. A. Albany, N. Y.: American Bureau of Foreign Travel.

† Cassell's Complete Pocket Guide. London, Paris, New York, and Melbourne: Cassell & Company.

‡ The Mormon Puzzle: and How to Solve It. By Rev. R. W. Beers, A. M. New York: Funk & Wagnalls. 1887. Price, \$1.00.

§ Field, Wood and Meadow Rambles. By Amanda B. Harris. Chicago: Interstate Publishing Company. Boston: 30 Franklin St.

¶ German Novelettes for School and Home. Selected from the best Modern Writers and with Etymological, Grammatical and Explanatory Notes. By Dr. Wilhelm Bernhardt. Vol. 1. Boston: D. C. Heath & Co. 1887.

\* Margaret of Angoulême, Queen of Navarre. By A. Mary F. Robinson. Boston: Roberts Brothers. Price, \$1.00.

† A Short History of Parliament. By B. C. Skottowe, M. A. New York: Harper & Brothers. Price, \$1.25.

‡ New York. By Elisha H. Roberts. In two volumes. Boston and New York: Houghton, Mifflin and Company. Price, \$2.50.

§ Brazil: Its Condition and Prospects. By C. C. Andrews. New York: D. Appleton and Company. Price, \$1.50.

¶ Haifa, or Life in Modern Palestine. By Laurence Oliphant. New York: Harper & Brothers. Price, \$1.75.

The spirit of appreciation, which after so many years of indifference or blindness, has recently been aroused to perceive the high merit and true beauty of Robert Browning's poetry, has made a general demand for new editions of his writings. Messrs. Houghton, Mifflin and Company are issuing such a work for American readers. A series of six volumes will contain the complete productions of the great poet. His writings have all recently undergone a careful revision by the author, and the publishers are giving scrupulous care in following out all of his corrections and changes. Volumes I.\* and II.\* of the series are now ready. They are printed on fine paper, in clear long primer type, and are plainly and neatly bound in cloth, with gilt tops. In the first volume is a fine steel engraving of the author. Each volume is furnished with an index of contents and also with one containing the first lines of its poems.

Twenty years ago Henry Ward Beecher's story of "Norwood"† was first published. In a letter concerning the book, written during its preparation, the author said it was his aim to make it one "that would be as good twenty years hence as on the day it appeared." How well it was received at that time is briefly and emphatically told in the fact that sixty thousand copies were shortly sold. To those who read it then the book comes now like a welcome visit from an old friend, bearing all the old time charm with it. It attracts and delights by its purity and its quaintness, its strength and its sweetness. Its depiction of sterling, sturdy New England characters, the fine descriptions of natural scenery, and the studies in natural history are the strong features of the book. There is nothing thrilling or unique in the plot. It is simply the story of life in a New England village, but its characters were people to whom life meant much, and their record refreshes and inspires those who read it.

A genuinely funny book is one of the rarest of productions, but it is to be found in "English as She is Taught."‡ The book is composed entirely of bona fide answers given by scholars in their recitations. They were collected by a lady teacher during a number of years' experience in the commonly considered hum-drum life of the school room. In her preface to the book she says that as the greatest compliment which could be paid her would be the assumption that any part of the book was the product of her own ingenuity, it is needless to assert that it is just what it purports to be; and that not one answer has been tampered with. One or two extracts will serve to show the character of the fun with which it is brimming over. "Corniferous—rocks in which fossil corn is found." "Climate lasts all the while; weather only a few days." "Congress is divided into civilized half civilized, and savage." "Strong breathing prevents bilious deficiencies." Mark Twain in *The Century* for April, characterizes it as "a darling literary curiosity."

"Sigrid"§ is a well-told little story of life in Iceland, dealing chiefly with rural characters, though occasional glimpses into town life are shown. It gives a good insight into the methods and customs of people in that island. Its author is one of the eminent native poets of recent times, and this story which the translator has rendered in prose formed the subject matter of one of his poems. Young readers will find it bright, instructive, and interesting.

"Juanita"¶ is a book of thrilling interest in itself, has a double attraction when the history of its authorship and the cause of its writing is known. Fifty years ago the gifted wife of Horace Mann paid a visit to Cuba, and what she saw and learned there of slave life on the great plantations decided her to call the attention of the public to the matter through the pages of a novel. The book was written, but as it unavoidably had to do with the personality of some of her friends, she deferred publishing it. After the death of her friends several years later, she determined then to give it to the public, but the manuscript had in some way been lost. Only since its author's death has it been recovered, and her sister, Miss Elizabeth Peabody, has given it to the press. It is graphically and powerfully written, reminding one often of "Uncle Tom's Cabin."

"Curiosities of the Bible"‡ is a large book containing a collection of questions, studies, and exercises, all pertaining to the Scriptures. It might be characterized as simply a compilation of the reports of work done in a New York Sunday-school. The plan adopted was to give out one question each Sabbath, and to have written answers brought in the next week. On that day the answer would be given, and also the number of the correct papers handed in. By this means great interest was added to the regular work. These answers are all given in the "Key" in the back part of the book. Numerous black-board illustrations by Frank Beard add to its worth. Dr. Vincent has written a very appreciative and suggestive introduction. The book will serve a most useful purpose in greatly increasing Bible knowledge.

\* Poetical and Dramatic Works of Robert Browning. Volume I.—Pauline: Paracelsus: Strafford: Sordello: Pippa Passes: King Victor and King Charles. Volume II\*.—Dramatic Lyrics: The Return of the Druses: A Blot in the 'Scutcheon: Colombe's Birthday: Dramatic Romances: A Soul's Tragedy: Luria. Boston and New York: Houghton, Mifflin and Company. Price per volume, \$1.75.

† Norwood. By Henry Ward Beecher. New York: Fords, Howard, and Hulbert. Price, \$1.25.

‡ English as She is Taught. Collected by Caroline B. Le Row. New York: Cassell & Company. Price, 50 cents.

§ Sigrid. An Icelandic Love Story: By Jon Thordsson. Translated by C. Chrest. New York: Thomas Y. Crowell & Co.

¶ Juanita. By Mary Mann. Boston: D. Lothrop Company. Price, \$1.50.

‡ Curiosities of the Bible. By a New York Sunday-School Superintendent. New York: E. B. Treat. Price, \$2.00.

New American editions of two works by Dr. Geikie have been issued by Messrs. Pott and Company. Books with this author's name attached need no commendatory words; they speak for themselves. "Precious Promises"‡ will carry comfort wherever it goes, bearing with it as it does the radiance of the "light from beyond." Short chapters, strengthening, and hopeful, bearing upon some Divine promise and preceded by a poetical gem in harmony with the thought, make up the volume. The second book, "Entering on Life,"§ is a volume of essays for young men particularly. It is full of advice such as only a truly wise man knows how to give. The chapters on "Helps" and "Reading" are especially fine. He claims that "books are the great trainers of men, for work of whatever kind"; and from this standpoint discusses what ones are best to become conversant with. Other chapters are on "Character," "Companions," "Success," and "Christianity."

Dr. Fothergill, the distinguished English physician, whose well earned reputation renders him high authority on matters to which he has given special attention, has recently published a most practical and useful book on "The Will Power."¶ It is not a metaphysical treatise as might naturally be supposed from the title. Keen, analytical character study is carried on in so direct and simple a method, that all readers will follow him through this usually considered abstruse subject, with ease and interest. It is one of the best aids to self-knowledge that can fall into any one's hands. Numerous notable historical characters are brought forward as verifications of the statements made. The unflinching working of the laws of heredity is traced down through long lines of ancestors, and is made the occasion of emphasizing the imperative duty of parents to study family traits, and to train their children wisely and fittingly with reference to the development of those traits in each individual. There are a few sentences in the book from which we should have to withhold our endorsement, but they do not in any way weaken the good, sound, common sense lessons taught.

If one were a school-master and anxious to inculcate all the manly virtues, he could ask for no better book to put into the hands of his boys or to read to them selections from than "An Italian School Boy's Journal."‡ The teacher can find his ideal in the master, Signor Perboni, in his tender care for his pupils, in his methods of forming character although dealing with very human boys. Parents can find in many respects an excellent model in the father and mother of this Italian boy. In the ready expression of feeling, the book seems foreign to us; but the translator has so caught the spirit of the Italians that even in its English dress it is recognized as genuine.

A work that has been tested and found practical is Professor Hamill's "New Science of Elocution."§ A revised edition has just been issued with changes in arrangement and additions of questions and diagrams which adapt it to the needs of the school room. This book will bear the criticism that is applicable to all the recent books on elocution—that there are no new selections, not even new arrangements from the standard authors. Teachers and pupils are becoming weary of selections that are as old as the "Gran-pian Hills."

To a wide-awake boy or girl a book with the title "Professor Johnny"¶ might not look very attractive, but as soon as he opens it and from the frontispiece discovers that Professor Johnny is a good-natured looking boy with a merry little sister Sue, and when farther on he finds out he isn't a bit of a prig, but simply styled "Prof." because he wears spectacles and is fond of making experiments in natural philosophy and chemistry, he is ready to be his assistant, and regrets when the last experiment is over. Few better books for the entertainment and instruction of children have ever been written.

"Nearly all of the disasters which occur from the breaking down of bridges are caused by defects which would be easily detected by an efficient system of inspection." Such is the first sentence in "Bridge Disasters in America."‡ It strikes a note of warning loud and clear on this subject of public safety concerning which the public is strangely apathetic save for a brief time after some terrible calamity. Professor Vose gives plans for bridge construction, inspection, and testing, which if carried out would establish a system under which the present needless criminal loss of human life would be stopped.

"Thoughts of Beauty"§ is a compilation of rich selections from the writings of Ruskin. Such a work is of great value to those whose time for reading is limited, and who yet desire to know something of the great writers of the world, and their works. They will learn the best of Ruskin through this book. The excerpts have been confined to his discourses on Nature, Morals, and Religion. The book bears evidence of great appreciation on the part of the compiler of the things that are true and beautiful and good, in this artist-author's books; and good taste is displayed in their arrangement.

\* The Precious Promises. By Cunningham Geikie, D.D. Price, 75 cents. Entering on Life. By same author. Price \$1.00. New York: James Pott & Co.

† The Will Power. By J. Milner Fothergill, M.D. New York: James Pott Co. Price, \$1.00.

‡ Curoré. An Italian School Boy's Journal. By Edmondo de Amicis. Translated by Isabel F. Haggood. New York: Thomas Y. Crowell & Co.

§ New Science of Elocution. By S. S. Hamill, A. M. New York: Phillips & Hunt. Cincinnati: Cranston & Stowe. Price, \$1.00.

¶ Professor Johnny. By Jāk. New York: Thomas Y. Crowell & Co.

‡ Bridge Disasters in America. The Cause and the Remedy. By George L. Vose. Boston: Lee and Shepard. Price, 50 cents.

§ Thoughts of Beauty and Words of Wisdom from the writings of John Ruskin. By Rose Porter. Boston: D. Lothrop Company.

With the subject "Some Secrets of Success" it is impossible for an author to be original, yet Mr. Tilley never fails to interest by his style of putting things or his choice of illustrations. This book surely will be helpful to him who reads carefully.

Helen Campbell has published in book form the series of letters which she wrote last winter for the *New York Tribune*. They are the saddest, most depressing sketches in the language, and the title, "Prisoners of Poverty,"† is so vividly true to the subject matter that it binds the pitiful tale to the reader's mind with an iron clasp. These sketches are not newspaper stories. They are not even "dressed up" over a foundation of facts. They are verbatim reports and plain descriptions gathered in visits among the working women of New York City. They deal with miseries which spring from warped ideas of life, with which no mere philanthropist can deal and for which there is no remedy but years of education and religious influence. Greed, lust, vanity, pride, a contempt for honest labor and for simplicity of life are the roots from which these wrongs grow. When these go out, the evils will die. We hope the book will be read far and wide. It will force serious thought, and seriousness only can loose the fetters of the "Prisoners of Poverty."

\*Masters of the Situation, or Some Secrets of Success. By William James Tilley, B. D. Chicago: S. C. Griggs and Company.

†Prisoners of Poverty. Women Wage Workers, Their Trades, and Their Lives. By Helen Campbell. Boston: Roberts Brothers. 1887.

## BOOKS RECEIVED.

Through the Gates of Gold. Boston: Roberts Brothers.

Critical Notes on the International Sunday-School Lessons from the Penta-

teuch. By the Rev. S. R. Driver, D.D. New York: Charles Scribner's Sons.

A Hand Book on Wood Carving. By Carrie Henderson. LaFayette, Ind.

First Book of Chemistry. By Mary Shaw-Brewster. New York: D. Appleton and Company.

Was He Wise? By J. K. Ludlum. New York: Phillips & Hunt. Cincinnati: Cranston & Stowe.

Five-Minute Sermons to Children. By the Rev. William Armstrong. New York: Phillips and Hunt. Cincinnati: Cranston & Stowe.

Who Was He? By Henry Frederic Reddall. New York: Phillips & Hunt. Cincinnati: Cranston & Stowe.

Harcourt; or, A Soul Illumined. By Annie Somers Gilchrist. Philadelphia: J. B. Lippincott Company.

A Simple Heart. By S. B. Elliott. New York: John Ireland.

Robert Browning's Poetry. Outline Studies published for the Chicago Browning Society. Chicago: Charles H. Kerr & Company.

The Best 100 Books. Containing Sir John Lubbock's list and additional suggestions by Ruskin and others. New York: E. L. Kellogg & Co.

The New Psychic Studies in their relation to Christian thought. By Franklin Johnson, D.D. New York: Funk & Wagnalls.

Recitations and Readings. Nos. 8 and 9. Compiled by Mrs. Anna Randall Diehl. New York: J. S. Ogilvie & Co.

The Red Books. Original Recitations. 12 numbers. By Eugene J. Hall. Chicago. Price, \$1.00.

Primer of Botany. By Mrs. A. A. Knight. Boston: Ginn and Company.

## SUMMARY OF IMPORTANT NEWS FOR APRIL, 1887.

HOME NEWS.—April 1. Decrease of the public debt during March, \$12,808,467.71.—Charles S. Fairchild appointed Secretary of the Treasury.

April 4. Strike among carpenters in Chicago and Cincinnati.—Death of Miss Catherine Wolfe.—The prohibition amendment defeated in Michigan.

April 5. Explosions in the steel works at Braddock, Pennsylvania, and in a coal mine at Savanna, Indian Territory.

April 6. Unveiling of monument to A. S. Johnston, at New Orleans.

April 7. Death of Commodore Charles Green, of the U. S. Navy.

April 8. Four thousand two hundred seventy-three immigrants land at Castle Garden.

April 10. Earthquake shocks at Burlington, Vermont.—Burning of the female seminary near Tahlequah, Indian Territory.

April 11. Riot among Hungarians, Swedes, and Poles in Denver, Colorado.

April 12. Disastrous fires at St. Augustine, Florida, and in Norton and Graham Counties, Kansas.

April 15. A cyclone destroys \$1,000,000 of property in the Ohio valley.

April 17. In the Haddock trial the jury disagree, eleven standing for acquittal, and one for conviction.

April 19. A kindergarten for the blind is opened at Boston Highlands.—Concord, Acton, and Lexington celebrate the anniversary of the first battle of the Revolution.

April 20. Memorial services for the late ex-President Arthur held in the capitol at Albany, New York.—Suicide of Lieutenant John W. Danenhower.—The Queen of Hawaii reaches San Francisco on her way to London to attend the jubilee of Queen Victoria.

April 22. Cyclones in Kansas, Arkansas, Missouri, and Kentucky.

April 23. Explosion of a boiler in a paper-mill at Paterson, New Jersey, kills twenty people.

April 26. Unveiling of a statue of John C. Calhoun, at Charleston, South Carolina.

April 28. A gale on the New Hampshire coast destroys numbers of fishing boats, and occasions the drowning of six men.

FOREIGN NEWS.—April 1. Prince Bismarck's seventy-second birthday.

April 3. Forty persons killed by the falling of a church roof in Sicily.

April 4. British colonial conference opens in London.

April 7. Travel blocked by a land slide in Monte Carlo.—Death of Jean Henri Dupine, the French dramatic writer.

April 8. Colonel King-Harman appointed Under Parliamentary Secretary for Ireland.—A thousand people left homeless by a ure in Kuty, Austria.

April 10. Another attempt to assassinate the Czar of Russia.

April 11. Great demonstration in London against the Coercion Act.

April 12. King William of Holland's seventieth birthday celebrated by general festivities at Amsterdam.

April 13. The steamer *Victoria* stranded on the French coast, and twenty passengers drowned.

April 14. Canadian Parliament opened by the Governor-general.—The Roman College decides in favor of recognizing the American Knights of Labor.

April 15. Much loss of life and property caused by gales on the west coast of Newfoundland.

April 17. The English steamer *Tasmanian* foundered off the Corsican coast; most of the passengers saved.—At Limerick, sixty thousand persons join in a demonstration against the Coercion Act, the mayor presiding.

April 21. A report in the British House of Commons gives the cost of running the government for the year as £90,000,000.

April 22. A hurricane on the northeast coast of Australia destroys four hundred boats, and five hundred fifty persons perish.

April 23. Germany votes four hundred fifty thousand francs to construct the Simplon tunnel through the Alps.

April 24. The Mexican Chamber of Deputies passes a bill amending the constitution, making it so that the president is eligible for two successive terms.

April 26. Resolutions against the Coercion Bill passed in the Canadian House of Commons.

April 27. Swiss state council ratifies copyright convention with the United States.

April 28. Steamer *Benton* of Singapore sunk and one hundred fifty persons drowned.

## SPECIAL NOTES.

On page 558 of the present impression of *THE CHAUTAUQUAN* the date of the National Teachers' Association Convention at which the members of Northern Illinois Chautauqua Union are to have a booth, is misstated. The Convention is to be held from the 7th to the 16th of July instead of from the 1st to the 3d of June.

In the list of graduates for 1886 the name of Josephine Kasterly was placed

by mistake among the names of Massachusetts. It belonged in the Michigan list.

The Northern Illinois Chautauqua Union hold a Chautauqua Banquet on the evening of May 31st, at the Grand Pacific Hotel, Chicago. Dr. J. L. Hurlbut, Prof. R. S. Holmes, and the Rev. B. F. Snow, president of the Class of '86, are all expected to be present.



## ASSEMBLY CALENDAR.

Acton Park, Ind.,	July 27-Aug. 17.	Mountain Grove, Berwick, Pa.,	
	Recognition Day August 4.		Recognition Day August 3.
Bay View, Mich.,	July 27-Aug. 11.	Missouri Assembly, Warrensburg, Mo.,	July 27-Aug. 5.
	Recognition Day August 10.		Recognition Day August 4.
Bluff Park, Iowa,	July 19-29.	Maplewood Park, Waseca, Minn.,	July 5-22.
	Recognition Day July 26.		Recognition Day July 13.
Canby, Oregon,	July 12-20.	Mountain Lake Park, Md.,	Aug. 2-12.
	Recognition Day July 19.		Recognition Day August 9.
Chautauqua, N. Y.,	July 2-Aug. 30.	Northern N. E. Assembly, Fryeburg, Maine,	July 21-Aug. 3.
	Recognition Day August 17.		Recognition Day July 26.
Clear Lake, Iowa,	July 20-Aug. 1.	Nebraska, Crete, Neb.,	June 29-July 9.
	Recognition Day, July 27.		Recognition Day July 7.
Chautauqua Assembly of Southern California, Long Beach, California,	July 20-Aug. 7.	New England Assembly, South Framingham, Mass.,	July 12-Aug. 23.
	Recognition Day August 6.		Recognition Day July 20.
Concord Encampment, Ohio,	Aug. 29-Sept. 3.	Niagara Assembly, near Toronto, Canada,	
	Recognition Day September 1.		Recognition Day July 28.
Colorado Chautauqua,	July 4-14.	Ocean Grove, N. J.,	July 9-20.
	Recognition Day July 9.		Recognition Day July 20.
East Epping, N. H.,	Aug. 15-20.	Ottawa, Kan.,	June 15-29.
	Recognition Day August 18.		Recognition Day June 22.
Island Heights, N. J.,	July 23-Aug. 1.	Pacific Coast Assembly, Monterey, Cal.,	July 4-15.
	Recognition Day July 28.		Recognition Day July 15.
Island Park, Ind.,	July 26-Aug. 8.	Puget Sound Assembly, Washington Territory,	July 18-29.
	Recognition Day July 28.		Recognition Day July 29.
Kentucky, Lexington, Ky.,	June 28-July 8.	Round Lake, N. Y.,	July 20-Aug. 5.
	Recognition Day July 7.		Recognition Day July 27.
Lakeside, Ohio,	July 19-Aug. 1.	Seaside, N. J.,	Aug. 1-14.
	Recognition Day July 27.		Recognition Day August 12.
Lake Bluff, Ill.,	July 28-Aug. 9.	Silver Lake Chautauqua Association, N. Y.,	
	Recognition Day August 6.		Recognition Day July 4.
Monteagle, Tenn.,	July 6-Sept. 7.	Winfield, Kan.,	June 7-18.
	Recognition Day July 29.		Recognition Day June 17.
Monona Lake, Wis.,	July 26-Aug. 5.	Winnipiseogee, Weirs, N. H.,	July 12-21.
	Recognition Day August 3.		Recognition Day July 19.
Mahtomedi, Minnesota,			
	Recognition Day July 27.		

## CHAUTAUQUA, 1887.

### CLASSIFIED PROGRAM

OF PUBLIC LECTURES TO BE DELIVERED AT THE CHAUTAUQUA MEETINGS BETWEEN JULY 2 AND AUGUST 28.

The following program contains only the public exercises of the Summer Sessions at Chautauqua. Stenographic reports of about eighty of the lectures here announced will be printed in the *Chautauqua Assembly Herald*. The price of this paper is \$1.00 per volume of nineteen issues; in combination with THE CHAUTAUQUAN to all subscribers sending in their subscriptions before August 1, \$2.25. Address Dr. T. L. FLOOD, Meadville, Pa.

### SPECIAL DAYS.

OPENING OF THE SEASON, JULY 2.  
INDEPENDENCE DAY, JULY 4.  
OPENING OF SUMMER SCHOOLS AND TEACHERS' RETREAT,  
JULY 9.  
MISSIONARY INSTITUTE, JULY 30-AUG. 1.  
OPENING OF FOURTEENTH ASSEMBLY, AUG. 2.

LABOR REFORM DAY, AUG. 6.

DENOMINATIONAL DAY, AUG. 10.

ALUMNI REUNION [(S. S. NORMAL DEP'T), AND BAPTIST DAY, AUG. 11.

RECOGNITION DAY, C. L. S. C. CLASS, '87, AUG. 17.

GRAND ARMY DAY, AUG. 20.

### SERMONS.

Sunday, July 3, Rev. Mark Guy Pearse, of England. Dr. J. W. Hamilton, of Boston.  
Sunday, July 10, Rev. Mark Guy Pearse.  
Sunday, July 17, Bishop W. F. Mallalieu, of New Orleans.  
Sunday, July 24, Dr. G. W. Miller.  
Sunday, July 31, Sam Jones, of Georgia. Chaplain C. C. McCabe.  
Sunday, Aug. 7, Dr. A. M. Fairbairn, of Oxford, Eng.  
Sunday, Aug. 14, Baccalaureate, Chancellor J. H. Vincent, LL.D.  
Sunday, Aug. 21, Dr. J. T. Duryea. Dr. N. West.  
Sunday, Aug. 28, ———

## ORATIONS AND ADDRESSES.

- Independence Day, Hon. H. G. Horr, of Michigan, 2 p. m.  
 July 4.  
 Missionary Address, Dr. Alexander Sutherland, Aug. 1.  
 Grand Army Day, Address: "The American People,"  
 Dr. B. M. Adams, August 20.

## LITERATURE.

- "Sidney Smith," Prof. C. J. Little, July 11.  
 "Walter Scott," Prof. C. J. Little, July 12.  
 "Wm. M. Thackeray," Prof. C. J. Little, July 13.  
 "George Eliot," Prof. C. J. Little, July 14.  
 "Alfred Tennyson," Prof. C. J. Little, July 15.  
 "Shakspeare's Youth," Col. Homer B. Sprague, July 19.  
 "Shakspeare as an Author," Col. Homer B. Sprague,  
 July 20.  
 "Shakspeare as a Man," Col. Homer B. Sprague, July 21.  
 "Washington Irving," Wallace Bruce, Aug. 8.  
 "Childhood in Dickens," Wallace Bruce, Aug. 9.  
 "Babylonian and Hebrew Psalmody," Prof. D. G. Lyon,  
 July 20.  
 "Some Italian Proverbs," Prof. George F. McKibben,  
 July 19.  
 "The Greek Drama," Prof. Edward Olson, Aug. 4.  
 "Horace" (three lectures), Prof. Lewis Stuart, Aug. 9, 11,  
 and 12.  
 "Robert Browning's Poetry," Prof. W. D. McClintock,  
 July 22.  
 "English Classical Poetry," Prof. W. D. McClintock,  
 Aug. 15.  
 "Schiller, Life and Works," Prof. Hermann J. Schmitz.  
 "Lessing, Life and Works," Prof. Hermann J. Schmitz,  
 July 26.  
 "German Novelists," Prof. J. Adolph Schmitz, July 29.  
 "Luther, his Life and Influence on German Literature,"  
 Prof. Hermann J. Schmitz, Aug. 20.  
 "Introduction to Modern German Literature," Prof. J.  
 Adolph Schmitz.  
 "Goethe's Faust," Prof. J. Adolph Schmitz.  
 "Early French Literature," Prof. A. De Rougemont.  
 "La Fontaine," Prof. A. De Rougemont.  
 "Voltaire as an Historian and Reformer," Prof. A. De  
 Rougemont.  
 "Victor Hugo," Prof. A. De Rougemont, July 27.  
 "The Book of Job," Prof. W. G. Ballantine, July 18.

## LANGUAGE.

- "The Language, Literature, and Education of the Ancient  
 Egyptians," Prof. L. Dickerman.  
 "Picturesque Greek Words," Prof. Alfred A. Wright,  
 Aug. 19.  
 "The Debt of the English Language to the New Testa-  
 ment Greek," Prof. Alfred A. Wright.  
 "The Origin and Formation of the French Language,"  
 Prof. A. De Rougemont.  
 "Qualities of the French Language; comparison with the  
 English Language," Prof. A. De Rougemont.  
 "Why Learn Greek?" Prof. Edward Olson, Aug. 13.

## SCIENCE.

- "Astronomy," illustrated, Rev. C. M. Westlake, July 12.  
 "Genesis and Geology," Prof. W. G. Ballantine, July 13.  
 "Chautauqua Flowers," Prof. Frederic Starr, July 23.  
 "The Glacial Period," Prof. Frederic Starr.  
 "The Chemistry of the Fine Arts," Prof. J. T. Edwards,  
 July 25.  
 "Animal Intelligence and What it Signifies," Dr. J. T.  
 Duryea, Aug. 16.  
 "Nature and Man," Dr. J. T. Duryea, Aug. 19.

- "The Evolutionary Genesis of Man," Dr. N. West,  
 Aug. 20.

- "The Two Oceans," Prof. J. T. Edwards, Aug. 18.

## THEOLOGICAL.

- "Different Methods of Public Speaking Compared," Dr.  
 J. M. Buckley, July 5.  
 "General and Special Preparation of Language, Thought,  
 and Feeling," Dr. J. M. Buckley, July 6.  
 "The Minister Making Special Preparation and the Art  
 of Public Speaking," Dr. J. M. Buckley, July 7.  
 "The Removal of Difficulties and the Treatment of Emer-  
 gencies," Dr. J. M. Buckley, July 8.  
 "The Principles of Prophecy," Prof. D. A. McClenahan.  
 "Development in the Old Testament Revelation," Prof.  
 D. A. McClenahan.  
 "The Church of the Future," Prof. Noah K. Davis, July 15.

## HISTORICAL AND RELIGIOUS.

- "The Conflict of the XVIth Century—Religions Old and  
 New," Dr. A. M. Fairbairn, Aug. 3.  
 "The XVIIth Century—its Conflict and its Problem—  
 Europe," Dr. Fairbairn, Aug. 4.  
 "The XVIIth Century, its Conflict and its Problem—  
 England and America, John Milton, and Questions of his  
 Time," Dr. Fairbairn, Aug. 5.  
 "The XVIIIth Century, its Conflict of Faith and Denial  
 —English Deism," Dr. Fairbairn, Aug. 8.  
 "The XIXth Century Compared and Contrasted with the  
 IInd Century," Dr. Fairbairn, Aug. 9.  
 "The XIXth Century Religion—its Problems in the  
 Higher Literature," Dr. Fairbairn, Aug. 10.  
 "A Bird's-eye View of the Roman World A. D. 1," Dr. J.  
 A. Broadus, Aug. 11.  
 "Some Fundamental Truths in Morals," Dr. J. T. Duryea,  
 Aug. 18.  
 "A Sketch of some of the more Distinguished Pharaohs,"  
 Prof. L. Dickerman.  
 "The Domestic Life and Customs of the Egyptian Com-  
 mon People," Prof. L. Dickerman.  
 "The Bedouin Arabs," Prof. W. G. Ballantine, July 11.  
 "Babylonian Account of the Deluge," Prof. D. G. Lyon,  
 July 12.  
 "Causes of the Decadence of Spain," Prof. William I.  
 Knapp, July 20.  
 "Seen Through Shadows," Prof. R. S. Holmes, July 21.  
 "The Beginning of the Empire," Prof. R. S. Holmes,  
 Aug. 16.

## POLITICAL ECONOMY.

- "Protection and Wages," Prof. W. G. Sumner, July 26.  
 "Protection and Commerce," Prof. W. G. Sumner, July 27.  
 "Question Drawer," Prof. W. G. Sumner, July 28.  
 Prof. R. E. Thompson, Aug. 4.  
 Prof. R. E. Thompson, Aug. 5.  
 Prof. R. E. Thompson, Aug. 6.

## SOCIAL QUESTIONS.

- "Our Southern Populations the Conservative Element of  
 the Republic," Bishop W. F. Mallalieu, July 16.  
 "Woman in the Social Structure," Dr. O. H. Warren,  
 July 18.  
 "The Chinese Problem in America," Mrs. S. L. Baldwin,  
 July 30.  
 "Let My People Go," Joseph D. Weeks, Aug. 6.  
 "American Labor Organization," Prof. Richard T. Ely,  
 July 18.  
 "Co-operation, the Ultimate Solution of the Labor Prob-  
 lem," Prof. Richard T. Ely, July 25.  
 "Progress and Perils of Popular Rule," Dr. C. R. Hen-  
 derson, Aug. 10.

"Our Country's Possibilities and Perils," J. DeWitt Miller, Aug. 18.

## LAW.

Public Lecture, Judge A. W. Tourgee, July 13.  
Special Course Law Lectures by Judge Tourgee, July 14-30.  
New plan of instruction.

## TRAVEL.

"California, the Golden Country" (illustrated), W. I. Marshall, July 2.  
"Yosemite and Big Trees" (illustrated), W. I. Marshall, July 6.  
"Colorado, the Centennial State" (illustrated), W. I. Marshall, July 7.  
"Yellowstone National Park" (illustrated), W. I. Marshall, July 8.  
"A visit to Mt. Nebo," Prof. W. G. Ballantine, July 15.  
"Life in Madrid," Prof. William I. Knapp, July 27.  
"Land, Language, and People of China" (illustrated), Dr. S. L. Baldwin, July 30.  
"Japan," Rev. G. W. Knox, Aug. 1.  
"Bedouins of the Desert," Miss Von Finkelstein, Aug. 1.  
"Homes and Haunts of Jesus," Miss Von Finkelstein, Aug. 3.  
"City Life in Jerusalem," Miss Von Finkelstein, Aug. 5.  
"The Jews of Jerusalem," Miss Von Finkelstein, Aug. 6.  
"Paris and the Four Napoleons" (illustrated), C. E. Bolton, Aug. 12.  
"Romantic Rhineland" (illustrated), C. E. Bolton, Aug. 13.  
"Reunited Germany and Heroic Louise" (illustrated), C. E. Bolton, Aug. 15.

## MISCELLANEOUS.

"Our Country" (illustrated), W. I. Marshall, July 4.  
"The People Down West," Mark Guy Pearse, July 5.  
"Hugh Latimer and the English Reformation," Mark Guy Pearse, July 6.  
"Some Old Folks at Home," Mark Guy Pearse, July 8.  
"Influence of the Stoic Philosophy upon the Moral and Intellectual Progress of Mankind," Prof. George S. Horswell, July 16.  
"Some Italian Proverbs," Prof. George F. McKibben, July 19.  
"Eloquence, the Why and How," Col. H. B. Sprague, July 22.  
"Practical versus Liberal Education," Prof. Noah K. Davis, July 22.  
"Pluck," Dr. G. W. Miller, July 25.  
"The Republic of San Marino," George F. McKibben, July 29.  
"Culture," Prof. Edward Olson, July 29.  
Sam P. Jones, July 30.  
"Aristotle," Prof. Noah K. Davis, Aug. 5.  
"Christ in Art" (illustrated), the Rev. W. H. Ingersoll, Aug. 9.  
"Ready Wit," Wallace Bruce, August 10.  
"Why Men Steal," the Rev. Emory J. Haynes, Aug. 11.  
"Some Pivotal Points in Destiny," Dr. J. M. King, Aug. 12.  
"Superfluous Women," Mary A. Livermore, Aug. 16.  
"Three-Thirds of a Man," J. DeWitt Miller.  
"Egyptian Art and Architecture," Prof. L. Dickerman.

## READINGS.

R. L. Cumnock, July 11, 27, Aug. 12.  
A. P. Burbank, July 15 and 16.  
Will Carleton, from his own works, Aug. 3 and 4.  
George W. Cable, from his own works, Aug. 13 and 15.

George Riddle, "Shakspearean readings," July 18, 19, 21, and 22.

Nella F. Brown, Aug. 19, 20, 22, and 23.

## ENTERTAINMENTS.

Spelling Match, \$10 and \$5 prizes, July 14.  
Pronunciation Match, \$10 and \$5 prizes, July 23.  
Quotation Match, \$10 and \$5 prizes, July 26.  
Moot-Court, July 29.

## CONCERTS.

A regular concert will be given every Saturday throughout the season. Prof. W. F. Sherwin, Director.  
Princeton Glee Club. Full concert, July 20. Interludes, preludes, etc., July 12, 13, 14, 15, 16, 18, 19, 21, and 22.  
Diller's Cornet Band. Frequent overtures in Amphitheater, out-door concerts, lake excursions, concert numbers, etc., from July 25 to Aug. 21.  
Boston Star Co. Aug. 19, 20, 22, and 23.

## ORGAN RECITALS.

Twelve classic recitals will be given by Prof. I. V. Flagler, as follows:

I. July 5. II. July 7. III. July 12. IV. July 14. V. July 19. VI. July 21. VII. July 26. VIII. July 28. IX. Aug. 1 (10 a. m.). X. Aug. 15. XI. Aug. 23. XII. Aug. 25.

## LAKE CONCERTS

Will be given by the Assembly on the steamer Jamestown as follows:

Friday, July 15, Princeton Glee Club.  
Friday, July 22, Princeton Glee Club.  
Friday, July 29, Diller's Band.  
Friday, August 5, Diller's Band.  
Friday, August 12, Diller's Band.  
Friday, August 19, Diller's Band.

## FIRE-WORKS AND ILLUMINATIONS.

Monday, July 4. Fire-works.  
Tuesday, Aug. 2. Fire-works.  
Thursday, Aug. 11. Illuminated Fleet.  
Tuesday, Aug. 16. Illumination of Hotel Park. Promenade Concert by Diller's Band.

## CHAUTAUQUA SUMMER CLASSES.

Full reports concerning the work done in all the Chautauqua Summer Classes will be published in the *Chautauqua Assembly Herald*. (See advertisement.)

## I. CHAUTAUQUA COLLEGE OF LIBERAL ARTS.

Summer Sessions—July 9-Aug. 20. Classes in Language, Literature, and Science. See special announcement in this issue of THE CHAUTAUQUAN.

Expenses for the summer session of the College of Liberal Arts are as follows:

Season ticket,	\$5.00
Tuition for instruction in the class or classes of any single department,	\$5.00
Tuition for instruction in each additional department, (Chemistry, \$2.50 extra.)	\$3.00

The price of board and lodging ranges from \$5 to \$8 per week, at cottages in July, and is slightly higher during August. At the Hotel Athenæum, table board may be obtained at \$10.50 per week. Rooms may be secured for any specified time during the season for \$1.00 per day and upward for each person, without board.

## II. CHAUTAUQUA TEACHERS' RETREAT.

July 9-30. Tickets, \$5.00.



## FACULTY.

John H. Vincent, LL.D., Chancellor.

Dr. J. W. Dickinson, State Superintendent of Schools for Massachusetts, Principal.

Professor Arthur C. Boyden, Bridgewater Normal School, Massachusetts.

G. I. Aldrich, Supt. Schools, Quincy, Mass., and many Professors in the Chautauqua College of Liberal Arts.

The Chautauqua Teachers' Retreat aims to benefit secular teachers by combining with the recreative delights of the summer vacation the stimulating and quickening influence of the summer school. Through lectures, lecture lessons, biographical studies, illustrative exercises, scientific experiments, etc., under the direction of the foremost educators of the age, the Retreat presents to its students, 1. The Philosophy of teaching; 2. The Methods which are the legitimate outgrowth of this philosophy; 3. The Application of methods to the different branches of learning. The Retreat also seeks to inspire its members to develop their individual powers and aptitudes in the study and practice of pedagogy.

## III. TOURGEE LAW LECTURES.

July 13-29. A course of lectures on Law by Judge Albion W. Tourgee, on a new and interesting plan. Judge Tourgee will give a public lecture July 13, at 2 p. m., and will follow it with twelve daily lectures.

The cost of the twelve lectures will be \$5.00; for one week's course of six lectures, \$3.00.

## IV. KINDERGARTEN INSTRUCTION.

Miss M. A. Bemis, of Fredonia, New York, has daily classes of children to which adults are admitted for the purpose of observing practical application of principles. Beside these exercises, a Normal class is organized each year for the careful and thorough training of Kindergarten teachers. After completing a prescribed course, the student will receive a Normal diploma. The work of the class comprises both personal instruction at Chautauqua in July and August and correspondence throughout the rest of the year.

Normal Class, \$10.00 per year. Children, season ticket, \$2.00. Single admission for adults, 25 cts.; course of fifteen lessons, \$3.00.

## V. MICROSCOPY.

The Department of Microscopy will be in charge of S. Winsor Baker of Jamestown, N. Y. A laboratory, complete with microscopes and accessories, and material for practical work in microscopy will be open to students for three weeks in July, during which time there will be given ten lessons in the use of the microscope and preparation of slides for study in all the branches of microscopy. Special lessons in the preparation of slides for the study of histology will be given.

## VI. SCHOOL OF ORATORY.

The school will open July 11, and continue in session six weeks, under the direction of Prof. R. L. Cumnock.

The Juvenile Class will include all the young people between the ages of ten and fourteen. In this class special attention will be directed to improvement in "Common Reading." Terms—\$10.00 for the session.

The General Class will take up the Science of Elocution. Terms—\$12.00 for the session.

The Advanced Class will study chiefly the "Philosophy of Expression" in the interpretation of the best specimens of English Prose and Verse. Terms—\$12.00 for the session.

The Ministerial Class will study the reading of the Bible, Hymn Book, Liturgy, and the Delivery of Sermons. Terms—\$8.00 for the session.

## VII. PENMANSHIP AND BOOK-KEEPING.

COMMERCIAL DEPARTMENT.—PROF. CHARLES R. WELLS, DIRECTOR.—The summer classes in this department, giving useful instruction in penmanship and book-keeping and business affairs, will open July 9, and continue until August 23.

Penmanship 10 lessons (including stationery), - \$3.00  
Book-keeping and Business Forms 15 lessons (including stationery), - \$5.00

Those holding Teachers' Retreat tickets will be given special instruction in classes, at reduced rates.

## VIII. PHONOGRAPHY, STENOGRAPHY, AND TYPE-WRITER.

SHORT HAND.—Professor Bridge, Dr. J. H. Vincent's private secretary, will teach classes for beginners and advanced pupils in STANDARD PHONOGRAPHY.

Terms, \$10.00 per course of 20 lessons for Beginners or Advanced Pupils. Classes organized in July.

The STENOGRAPH will be in the charge of Mrs. M. M. Bartholomew.

Terms, \$10.00 per course of 20 lessons.

TYPE-WRITING, in all its departments and details, will be taught by Mrs. A. L. Plowman, Buffalo, N. Y.

Terms, \$5.00 for instruction and use of machine.

## IX. CLAY MODELING.

EDWARD A. SPRING, of Perth Amboy, N. J., Director.

I. Modeling Class. Terms: Ticket for six lessons, \$3.00. Beginners can join at any session.

II. Special Lessons. Terms: Each lesson, \$2.00. Personal instruction to small numbers in work for Studio, Laboratory, or Home. The attention of Professional Artists, Physicians, Science Teachers, and Kindergartners is invited to this opportunity.

III. Children's Class (under 12 years of age). Terms: Each lesson, twenty cents.

## X. ART.

The Chautauqua Society of Fine Arts will graduate its first class at Chautauqua this summer when the prizes offered by Messrs. Cassell & Co. together with the class diplomas will be awarded. Mr. Frank Fowler, Superintendent of the C. S. F. A., will be present on class day and also for some weeks previous when he will personally instruct special classes. There will be an exhibition of pupils' work at Chautauqua and also some of the work of a number of well-known artists.

A department of Wood Carving will be taught by Miss Carrie Henderson of Lafayette, Ind. (author of a "Handbook on Wood Carving for Self-instruction.") Miss Henderson is a graduate of Purdue University, which has a fine department of Industrial Art; she has also worked in the private studio of Benn Pitman, the noted artist and designer. Persons desiring to enter the class should make application before June 15, 1887, to the instructor, so that arrangements can be made for renting tools. Easels, cabinets, boxes, tables, book-racks, hat-racks, escritaires, paper holders, sideboards, book-cases, and mantel panels, bread-plates, are suggested as suitable articles to be carved. Address all communications to Miss Carrie Henderson, Lafayette, Ind.

Term of 20 lessons—\$15.00. Opens July 9.

Miss Isabel E. Smith, a teacher and artist of long experience, will have charge of the department of China Painting at Chautauqua in 1887. Miss Smith has not only studied diligently in this country, but has availed herself of the best masters in Paris, Sèvres, and Dresden. Instruction will be given in painting flowers, fruit, and landscapes, while portraits and figures will be made a specialty. In order to avoid the irritating delays incident to sending the

China to a distant kiln, a kiln will be set up at Chautauqua and the work "fired" on the spot.

#### XI. MUSICAL INSTRUCTION.

The musical work at Chautauqua in 1887 will be unusually thorough, and has been organized as follows:

I. DEPARTMENT OF MUSICAL LITERATURE.—Lectures on Musical Art, Biography and History, supplemented by the performance of appropriate works of the great masters.

II. DEPARTMENT OF INSTRUMENTAL MUSIC.—A thorough and systematic course of study, with teachers of the highest excellence, under the direction of Mr. I. V. Flagler. In this department will be taught in a thorough and comprehensive manner, the Pipe Organ, Piano-Forte, Violin, and other instruments, Musical Theory, Composition, and Harmony.

III. DEPARTMENT OF VOICE CULTURE.—Sight Singing, Theory and Harmony in Classes. The art of conducting, and the interpretation of advanced musical works, under the direction of W. F. Sherwin, of Boston.

IV. DEPARTMENT OF PUBLIC SCHOOL MUSIC.—Summer session of the National Normal Music School of Boston.

#### FACULTY:

Mr. Luther Whiting Mason, President of the National Normal Music School, formerly supervisor of music in the public schools of Boston, and recently director of music for the Empire of Japan.

Mr. Geo. A. Veazie, Jr., Secretary of the National Normal Music School, and supervisor of music in the public schools of Chelsea, Mass.

Mr. F. H. Butterfield, supervisor of music in the public schools of Washington, D. C.

#### PROGRAM:

A two, four, and six, weeks' course of study will be held at Chautauqua during the summer of 1887.

#### TERMS:

Two weeks' course, adults, 15 lessons,	-	\$10.00
" " " children,	- - -	2.00
Four weeks' course, adults, 30 lessons,	-	15.00
" " " children,	- - -	3.00
Six weeks' course, adults,	- - -	20.00
" " " children,	- - -	5.00
Admission to lectures for non-students,	-	50c.
Single lessons,	- - - - -	\$2.00

#### XII. PHYSICAL CULTURE.

DEPARTMENT OF PHYSICAL EDUCATION.—Physical Training at Chautauqua will receive even more attention this year than last. The plan of work is as follows:

1. Light Gymnastics.
2. Heavy Gymnastics.
3. Athletics.
4. Anthropometry.
5. A course of reading.
6. Systems of teaching.

This department will be under the supervision of W. G. Anderson, M. D., Director of Physical Training at Adelphi Academy, Brooklyn, and Yale College, New Haven, and President of Brooklyn Normal School for Physical Training.

#### XIII. PHOTOGRAPHY.

The Chautauqua School of Photography is a thoroughly

equipped organization for conducting, by correspondence, this most delightful study. Books and materials are supplied by the school at reasonable rates, and full instructions are given in the use of the camera.

The course comprises twenty-four weeks of study, from May to October; but students may join the school at any time after January 1, 1887. Circulars giving full particulars may be obtained from the C. L. S. C. Office, Plainfield, N. J.

The school will open with two classes on or about July 9.

*First Class.* Monday and Thursday.—Theory and practice. Landscape Portraiture, Inanimate Objects and Reproduction, Instantaneous Views.

*Second Class.* Thursday and Friday.—The rudiments of Photographic operations. Theory and practice. Exercises in Landscape Portraiture. The sizes of plates to be of small dimensions and medium sensitiveness.

#### XIV. THE SUNDAY-SCHOOL NORMAL WORK.

Six Courses of study in Sunday-school Normal work have been arranged.

The first four Courses will be taught in succession, beginning Wednesday morning, August 3, and continuing till Tuesday, August 16, two sessions each day. The teachers for this season will be Dr. J. H. Vincent and the Rev. A. E. Dunning.

The fifth and sixth Courses will also continue from August 3 to August 16. The teachers will be Dr. J. L. Hurlbut and Dr. Frank Russell.

Examinations for all the Courses will be held on Tuesday, August 16. Persons may take examinations for one or more Courses. To each who successfully passes the examinations for the six Courses, the diploma of the Chautauqua Normal Union will be given.

#### XV. MOTHERS AND PRIMARY TEACHERS' MEETING.

During the session of the Assembly (August 2-23) there will be held ten meetings for mothers and primary class teachers. The different meetings will be under the charge of capable Normal instructors, and much benefit and pleasure may be expected from this course. The topics discussed will be as follows: The 1st, 3rd, 5th, 7th, and 9th are for mothers' conferences, the others for mothers and teachers.

#### XVI. THE CHAUTAUQUA IDEAL FOREIGN TOUR

Is a plan for acquainting people with foreign travel as an art; the means of travel, the character of accommodations, the habits of the various peoples, the centers of art and literary associations. It attempts, as its name implies, to make people imagine themselves in other lands.

The work of the Tour is accomplished by means of "Conferences" or talks about travel by those who have been abroad, supplemented by stereopticon views and public lectures. The "Conferences" for 1887 are as follows:

July 12. Temple, 5 p. m. "Outlines of French and German History."

July 14. Temple, 5 p. m. "Paris."

July 19. Temple, 5 p. m. "Provincial France."

July 21. Temple, 5 p. m. "The Rhine Country."

July 26. Temple, 5 p. m. "Berlin."

For all information concerning Chautauqua program, tuition, railroad fares, board, renting of cottages, etc., address

W. A. DUNCAN, Secretary, Syracuse, N. Y.

After June 25, Chautauqua, N. Y.